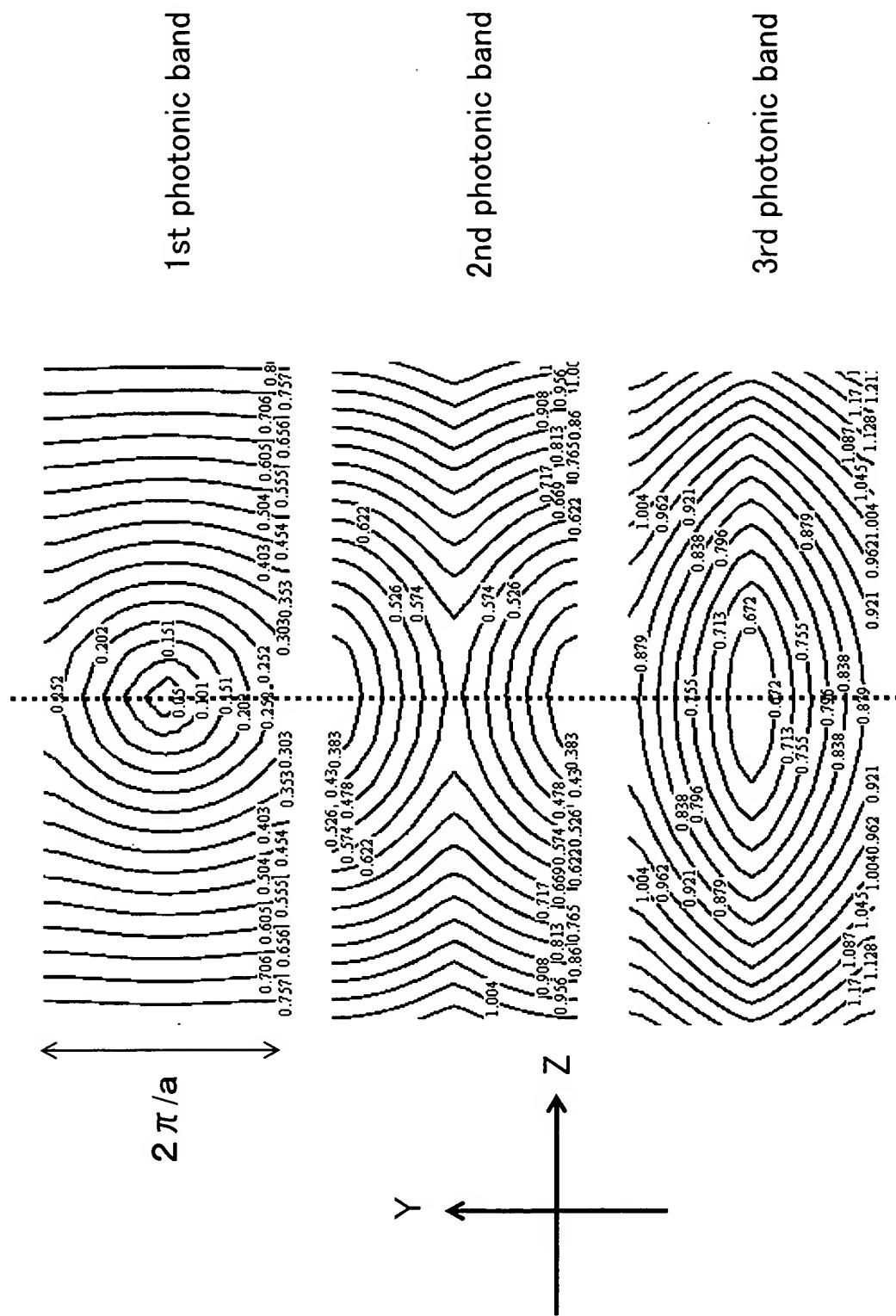
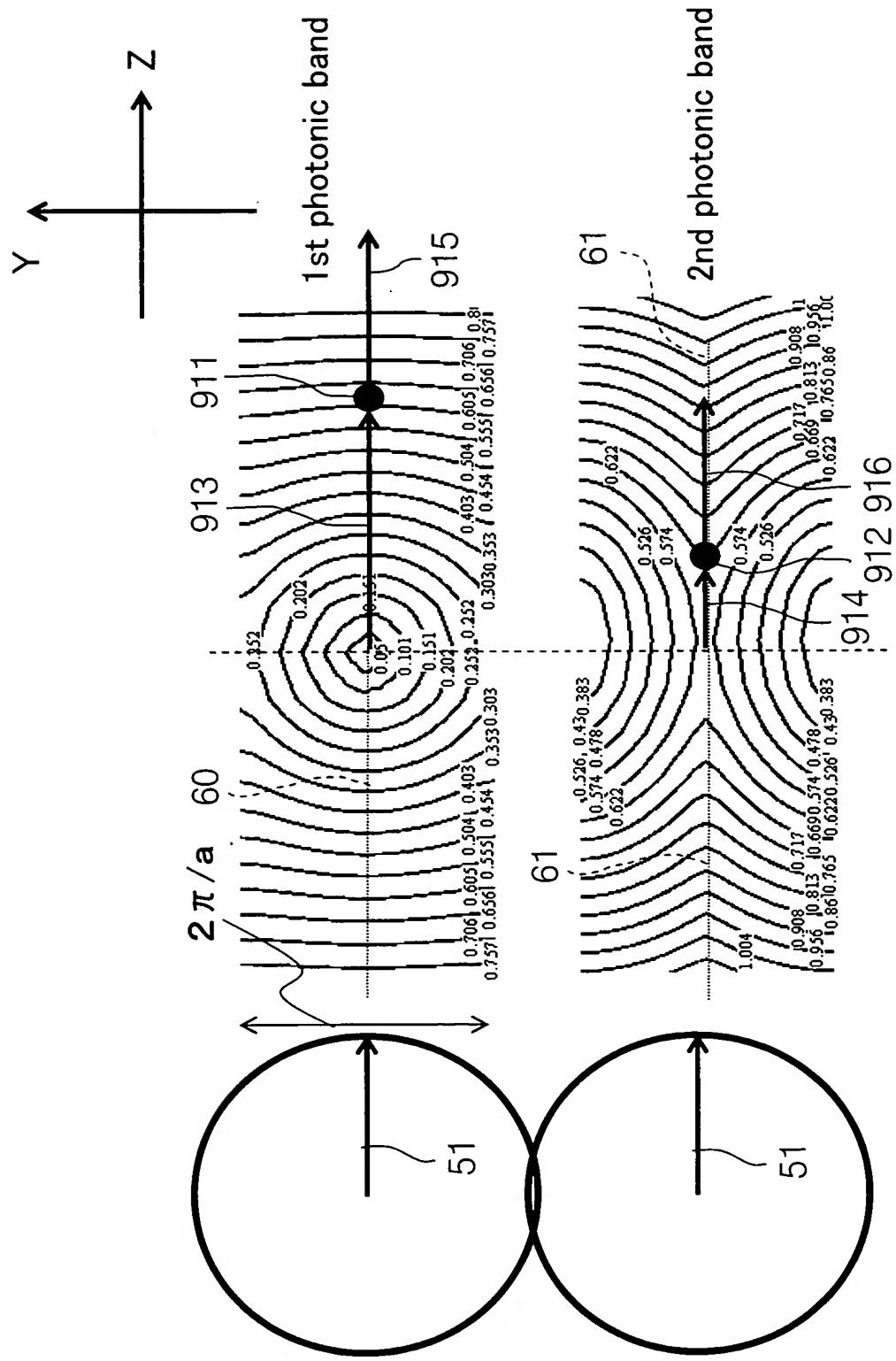


Fig. 1

Fig. 2





3
Fig.

Fig.4

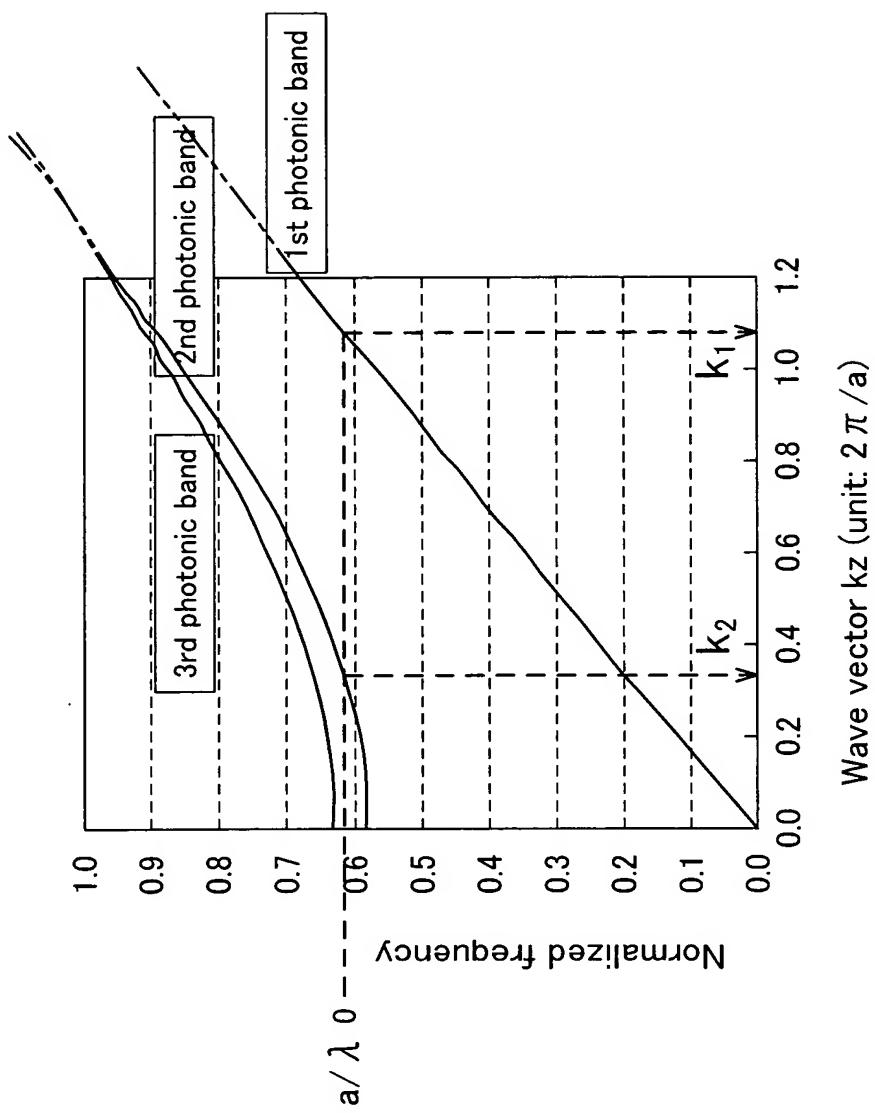


Fig. 5

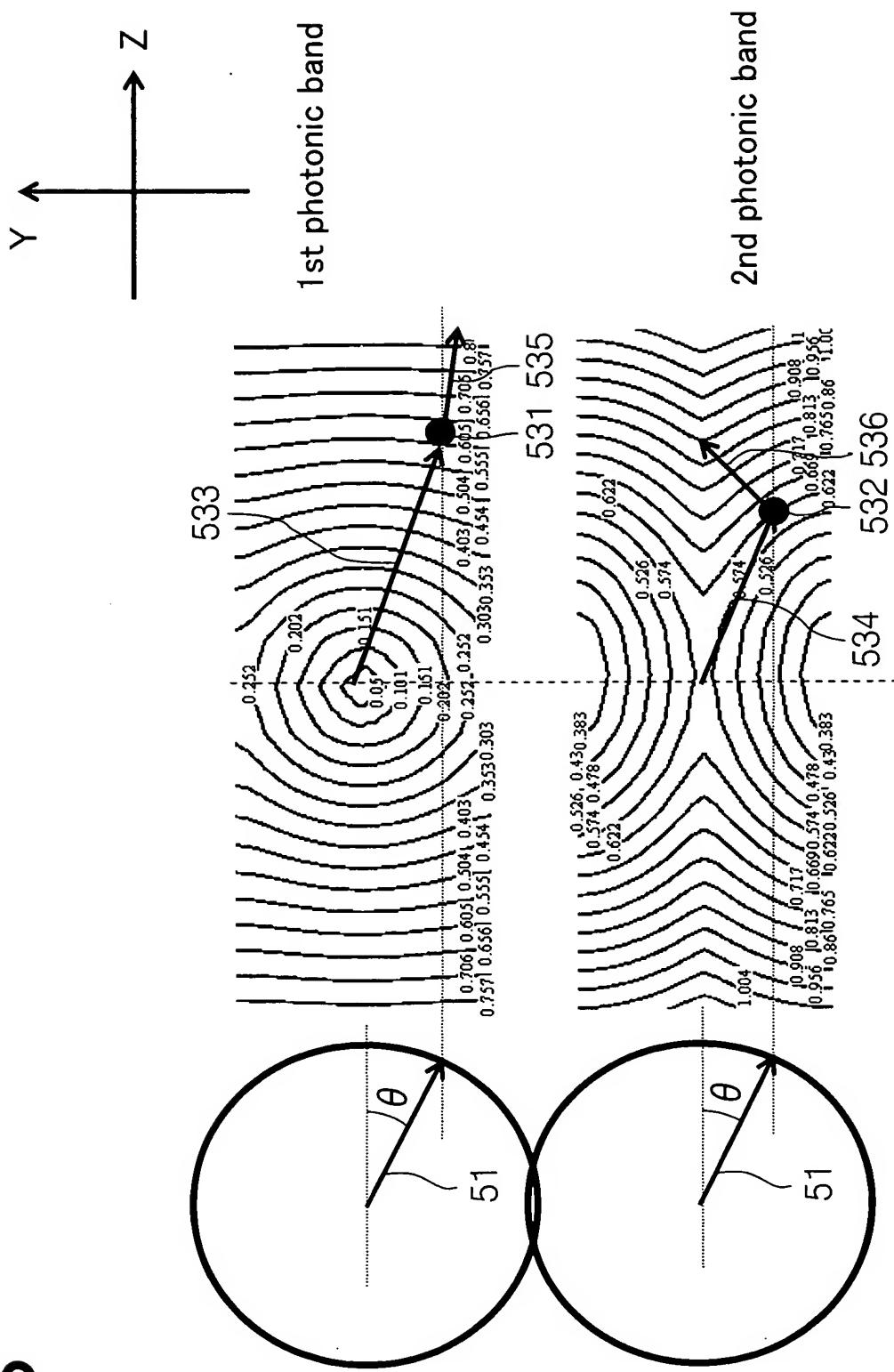


Fig. 6

Circle with radius $= n \cdot (a / \lambda_0)$ (unit : $2\pi/a$)

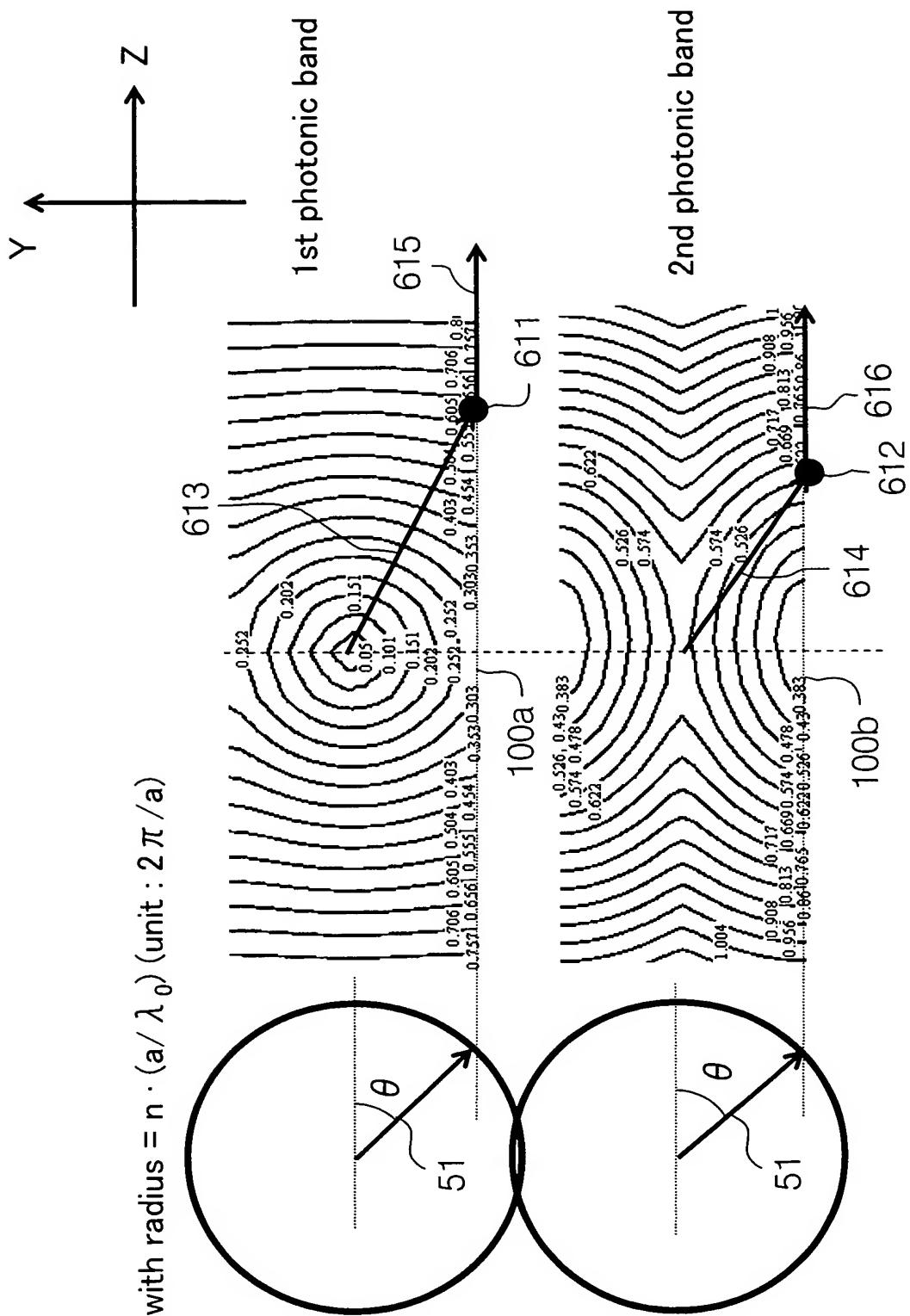


Fig.7

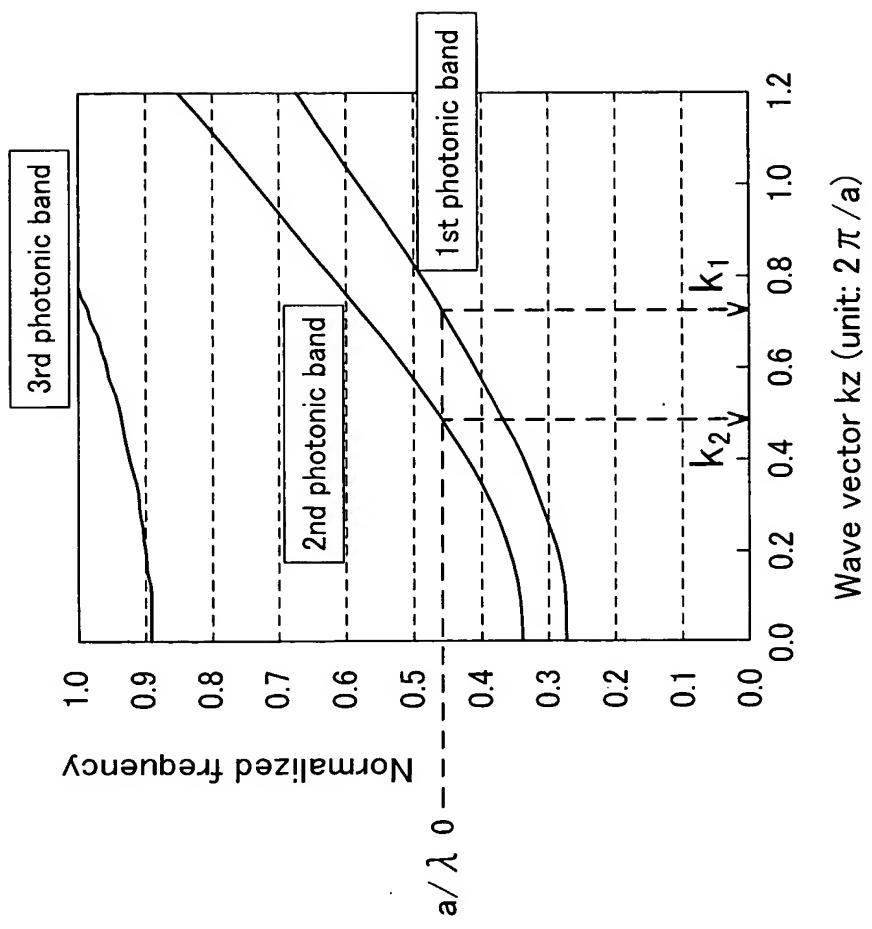
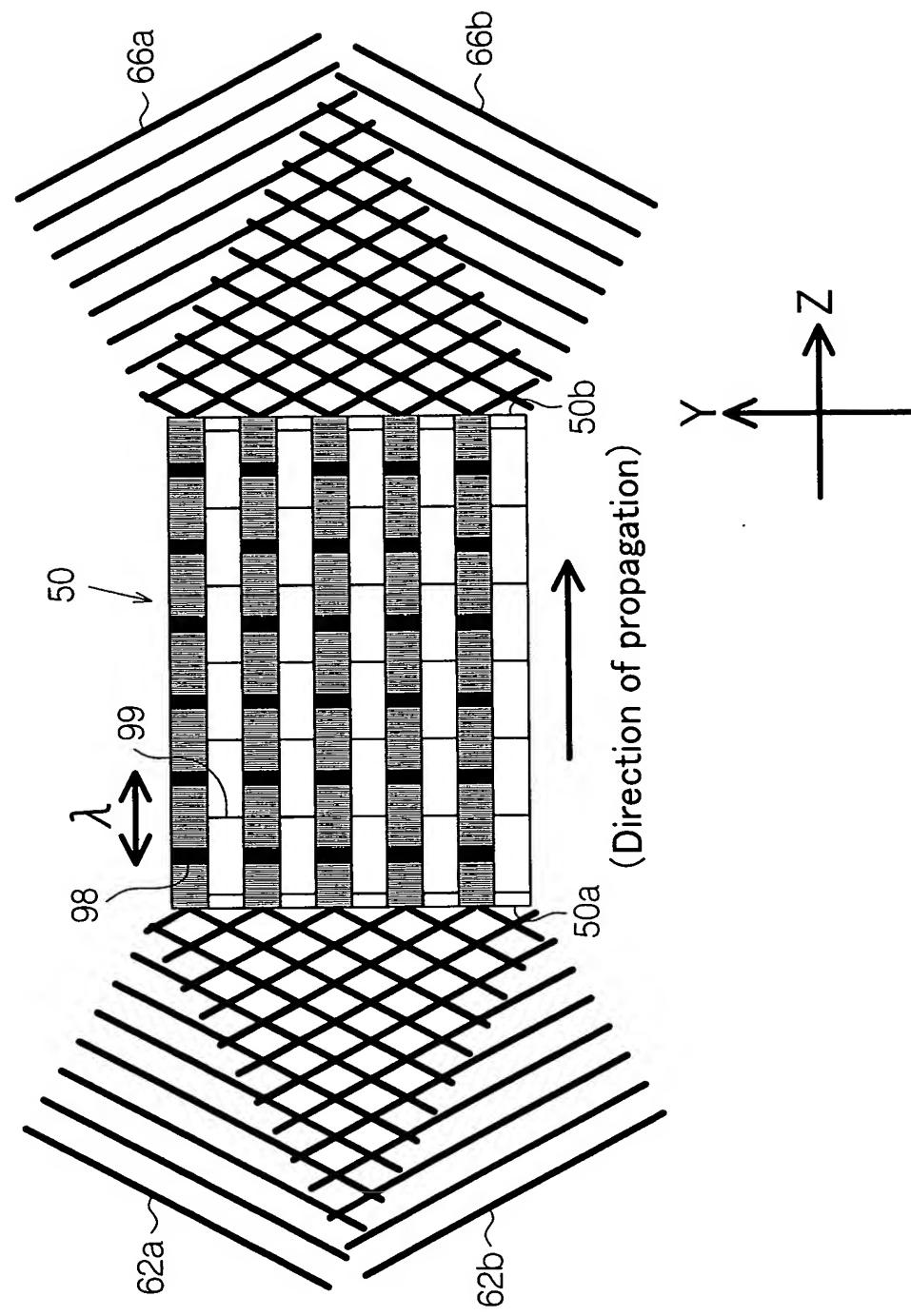


Fig.8



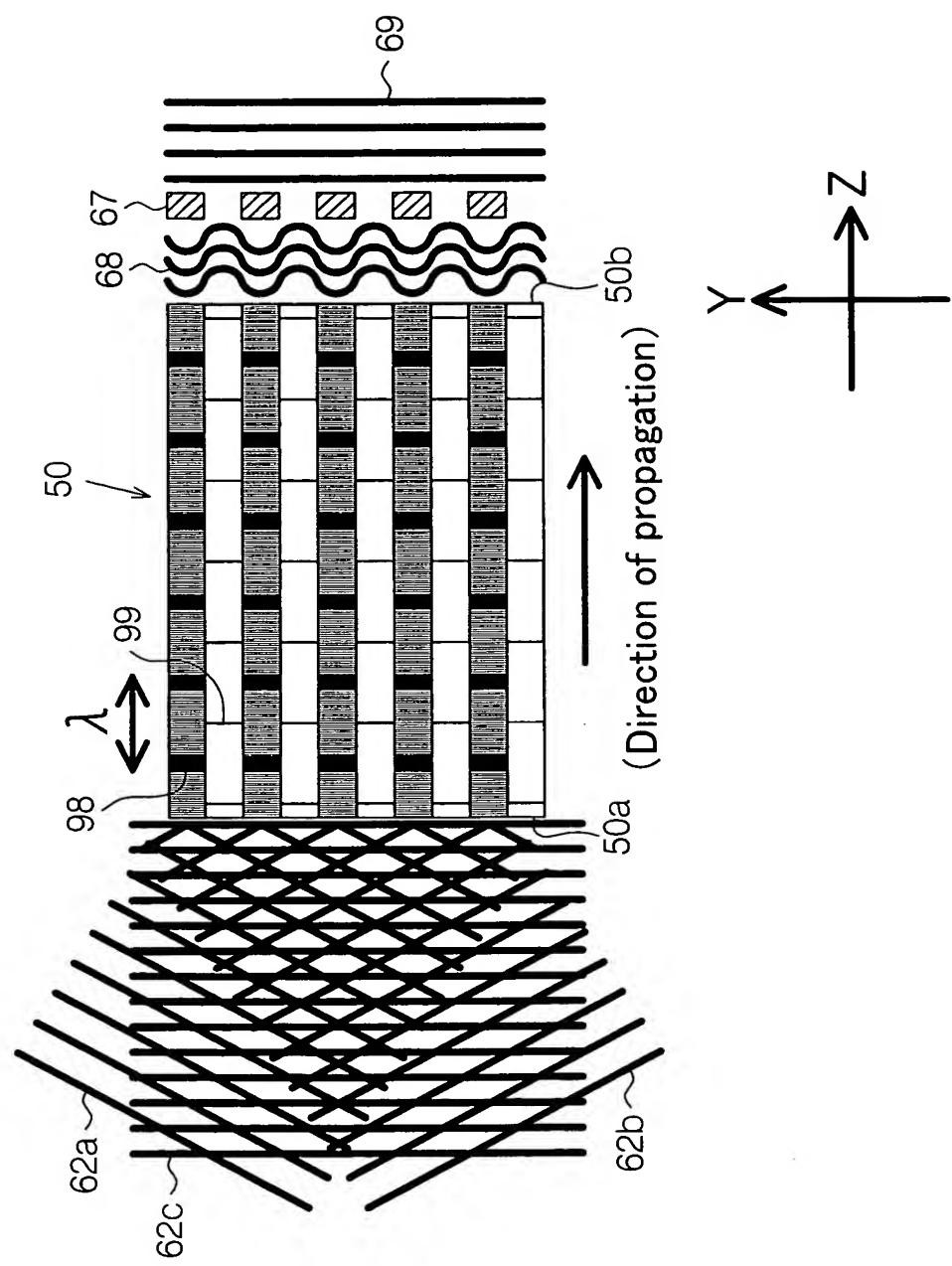


Fig.9

Fig. 10

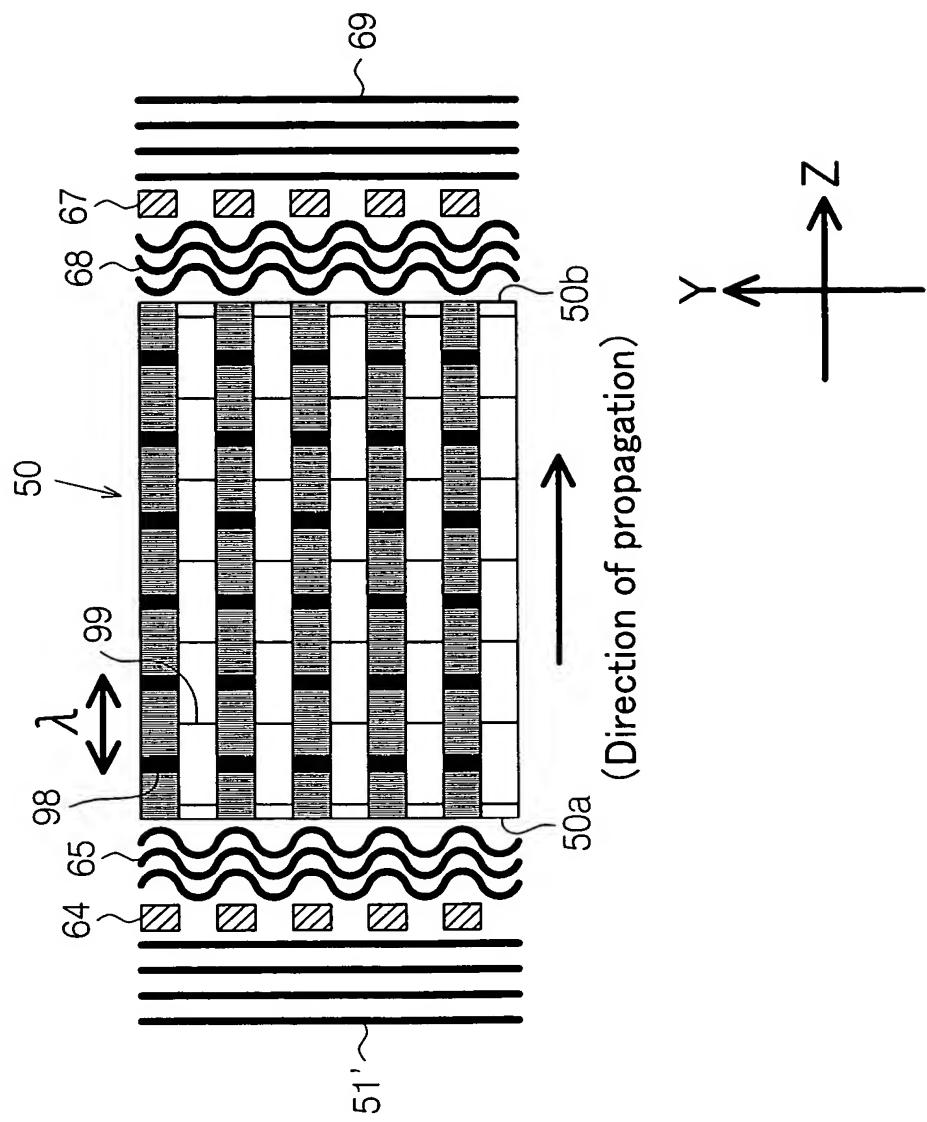


Fig.11

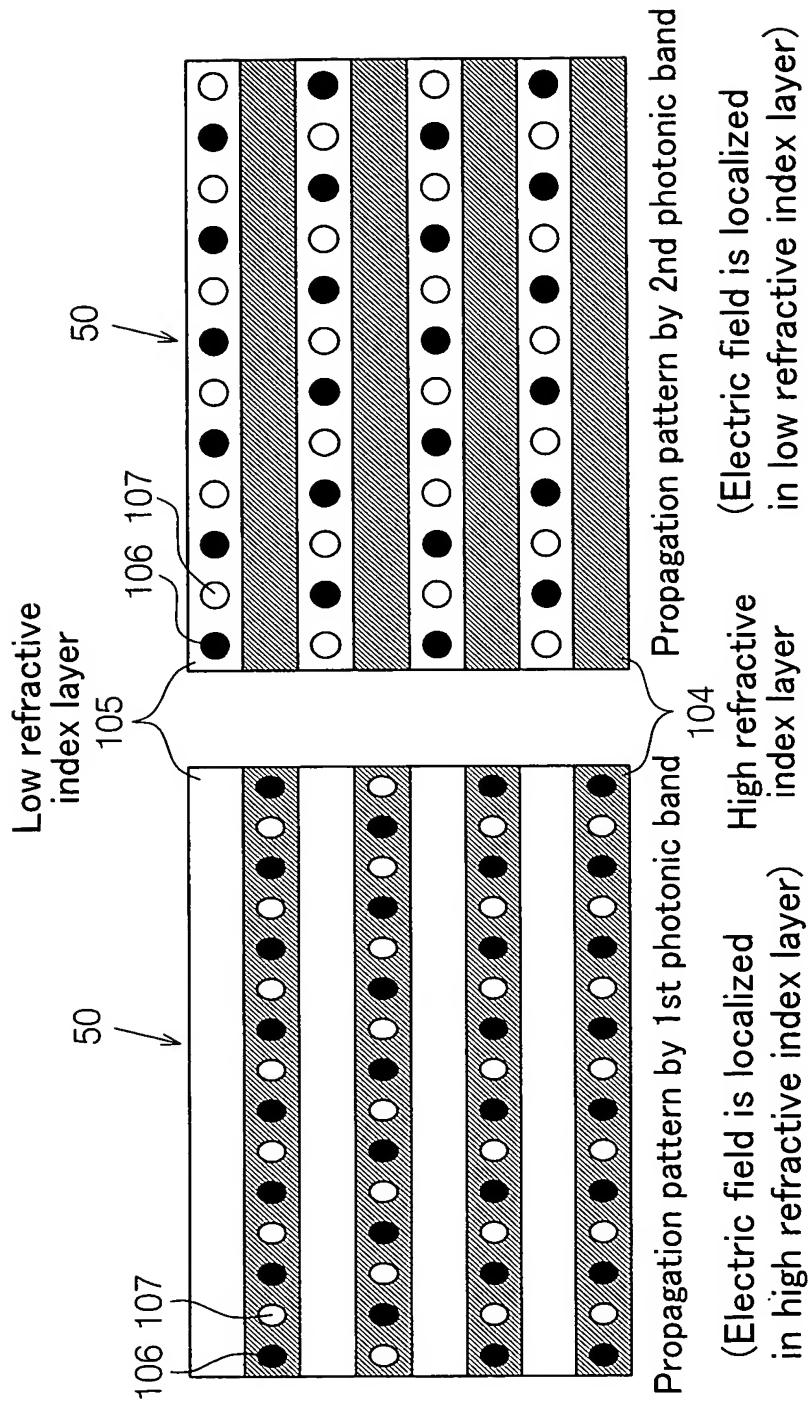
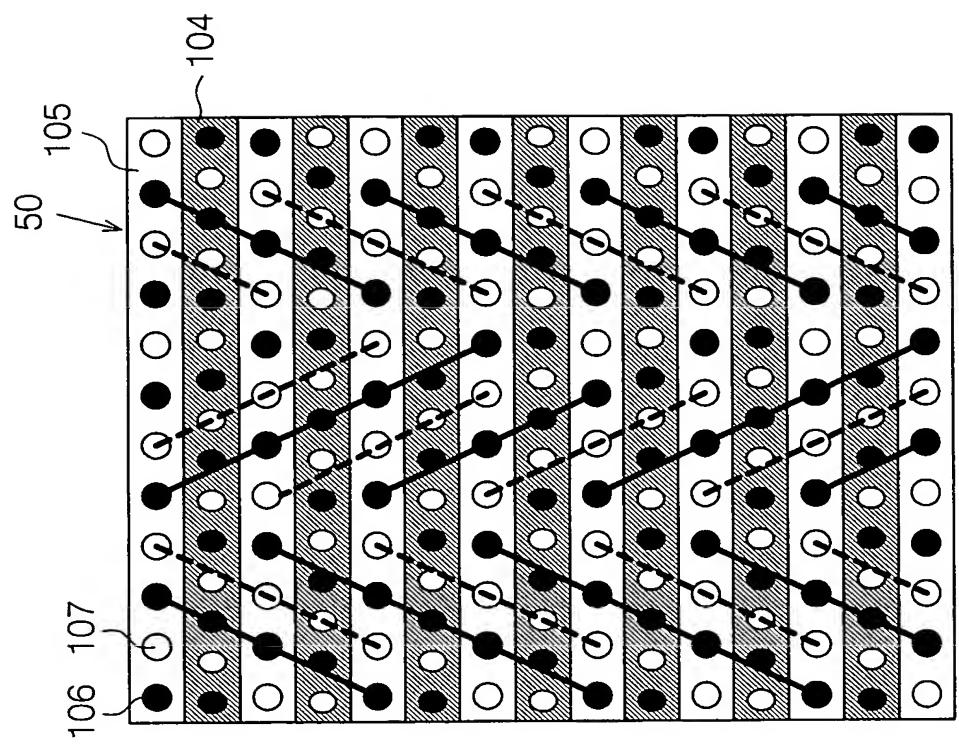


Fig.12



Propagation pattern by 1st and 2nd photonic bands

13

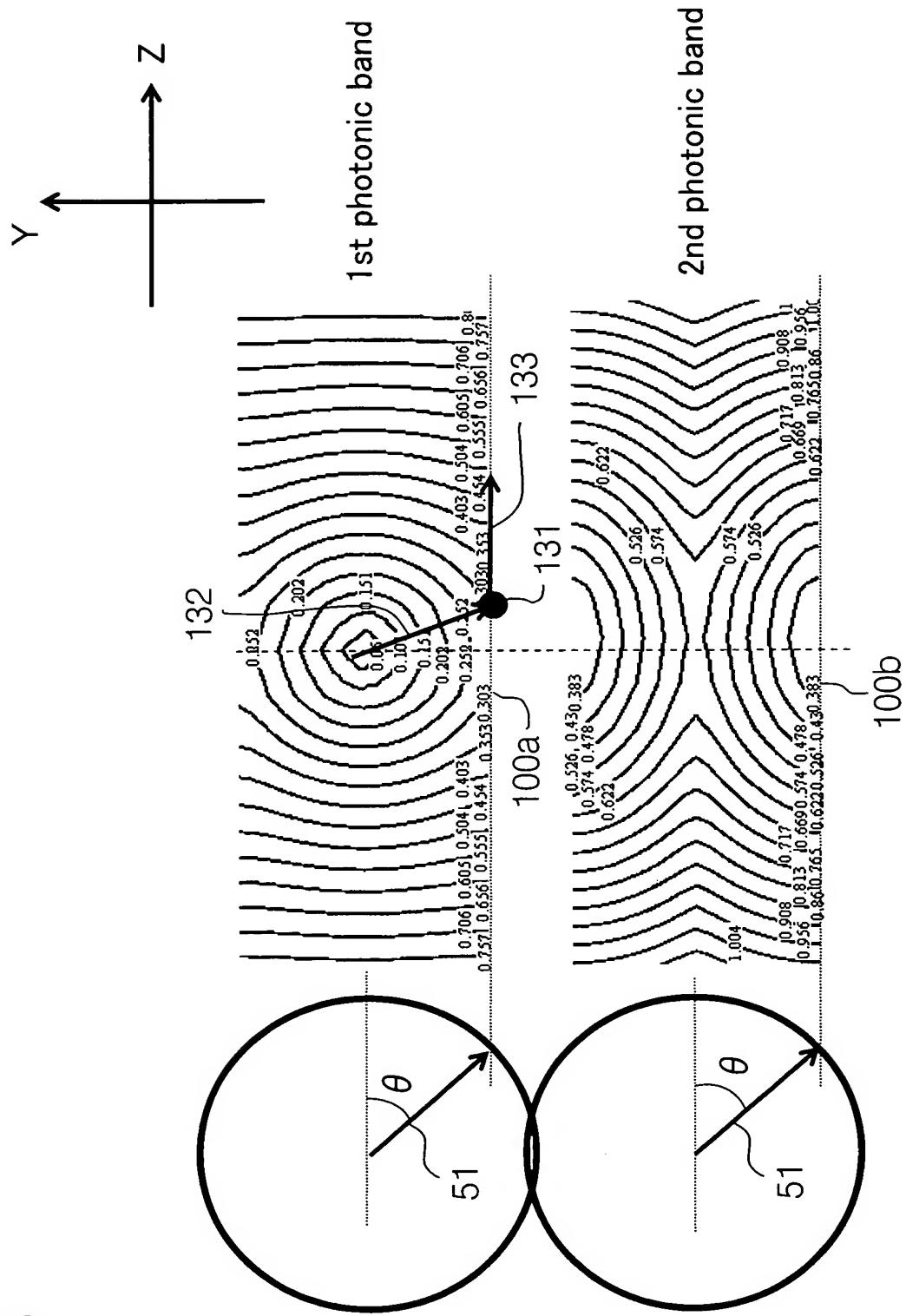
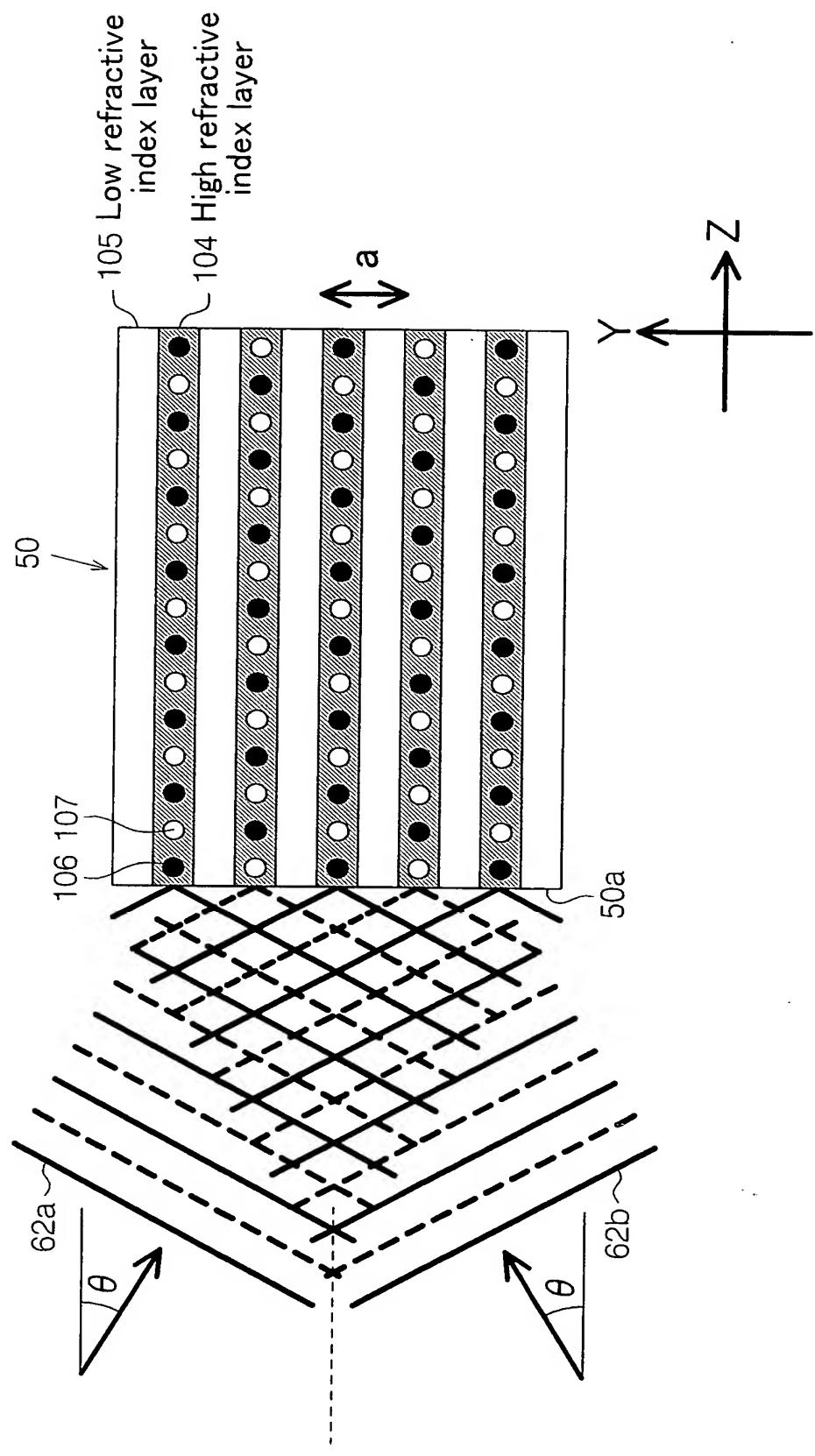


Fig. 14



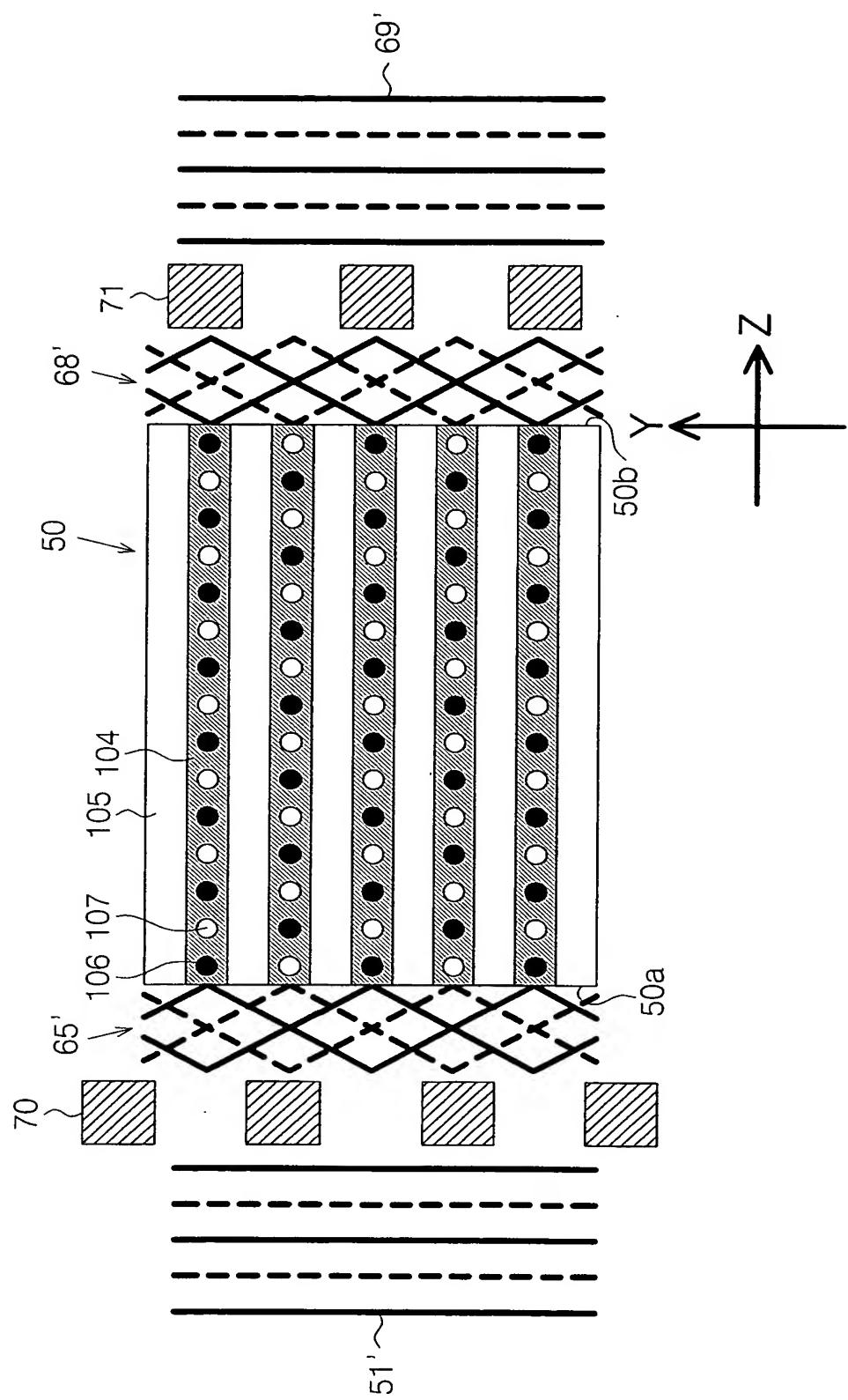


Fig. 15

Fig. 16

Directions of diffracted light depends on position
of end facet in zigzag propagation pattern.

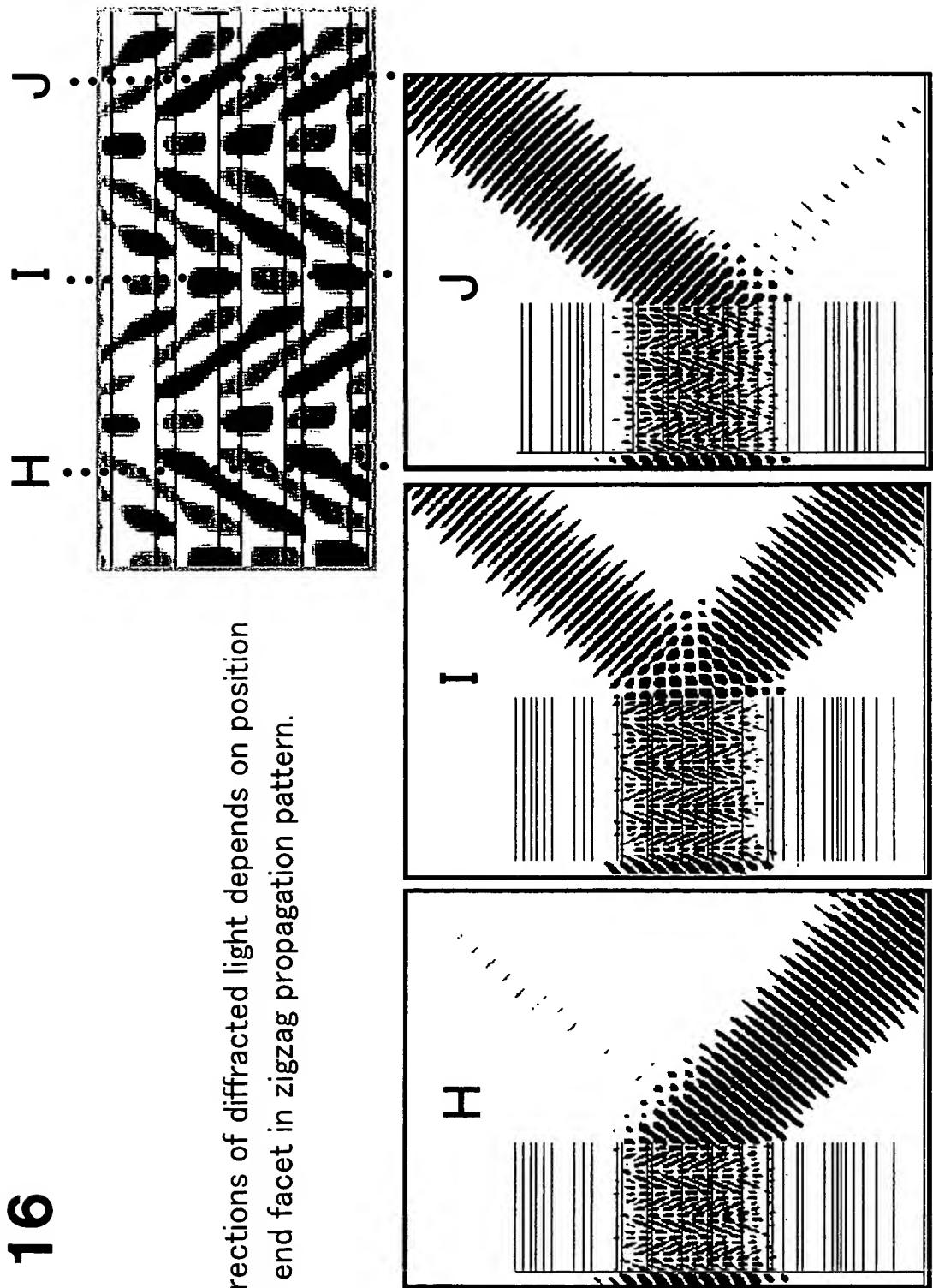


Fig. 17

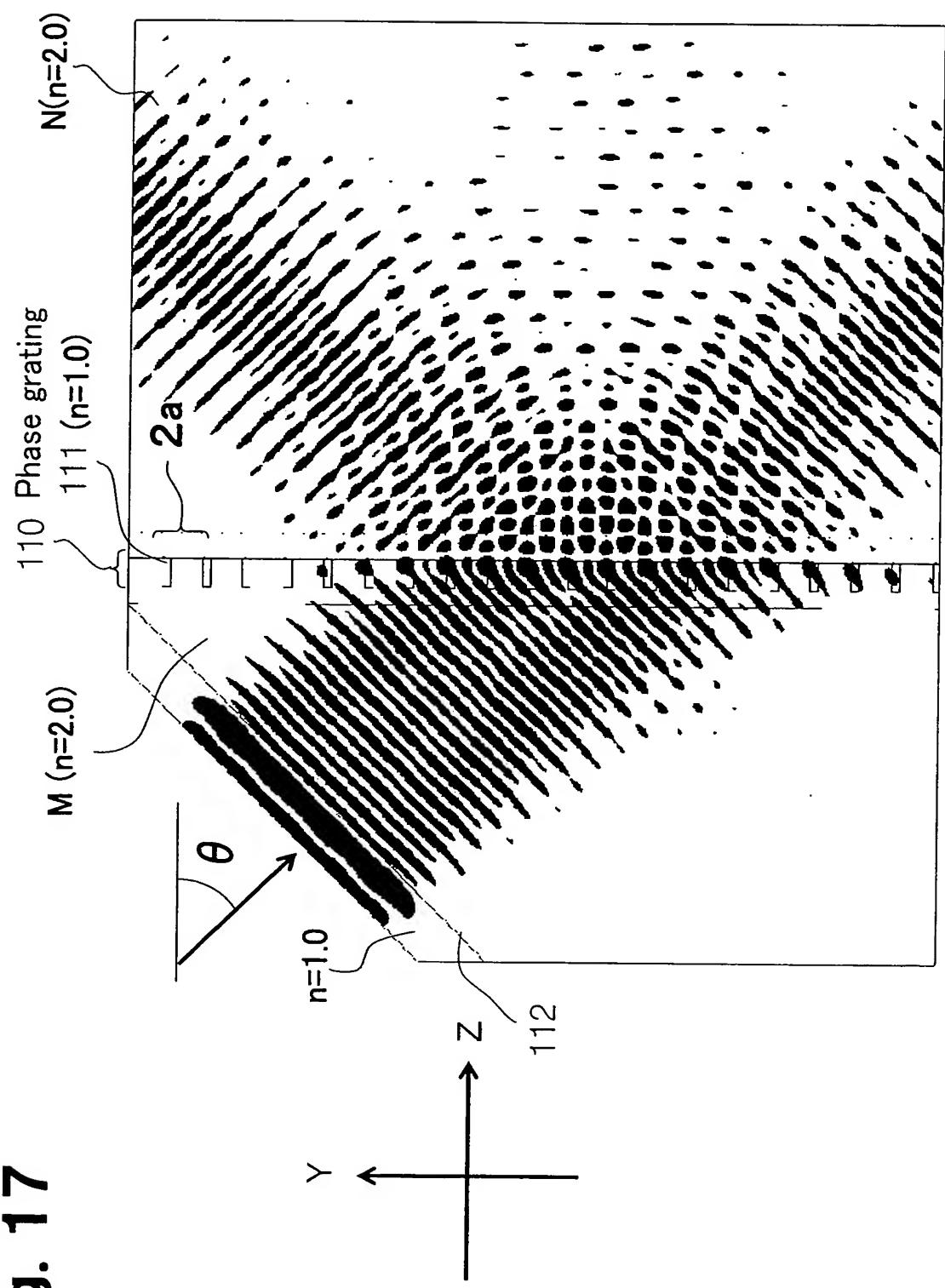


Fig. 18

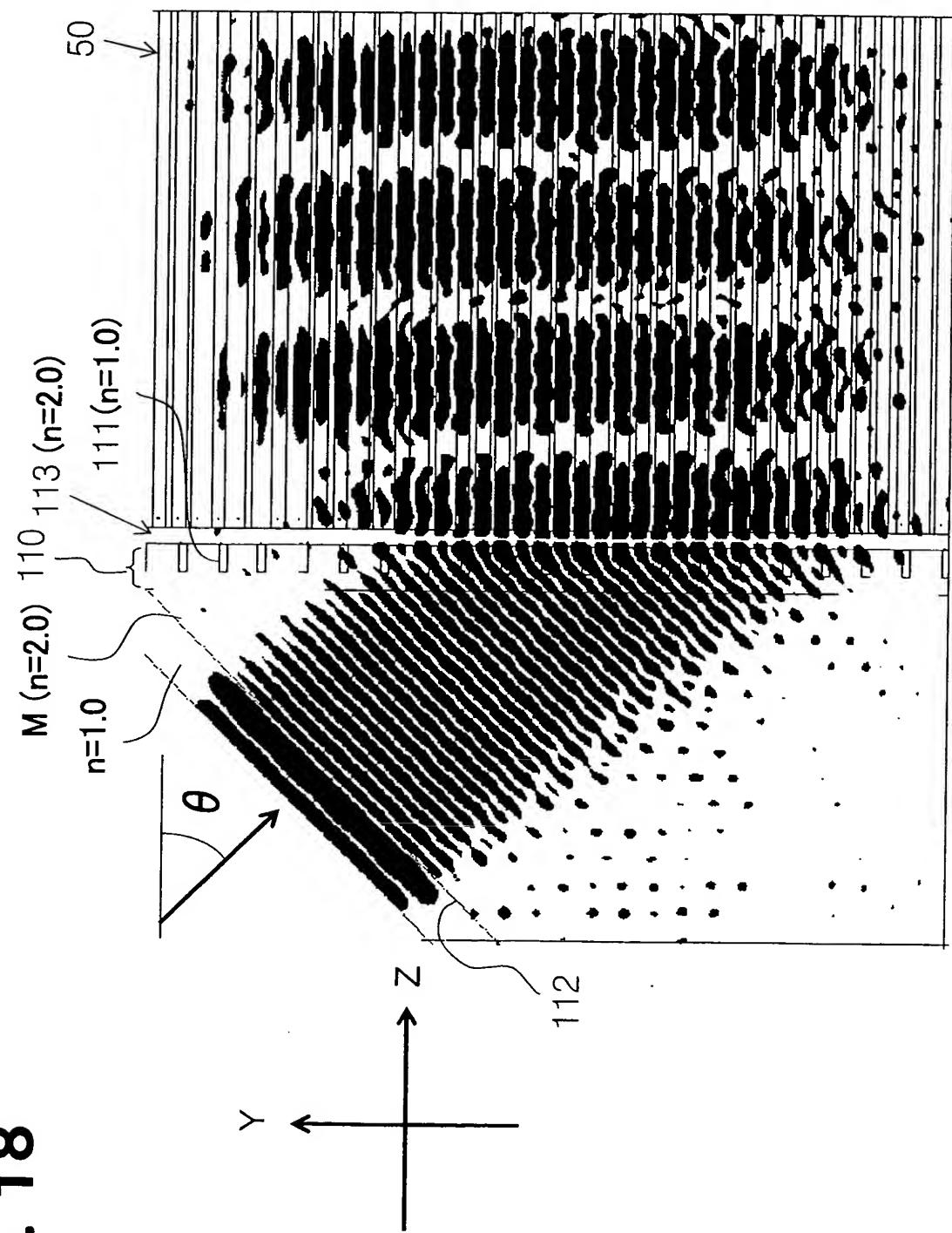


Fig. 19(a)

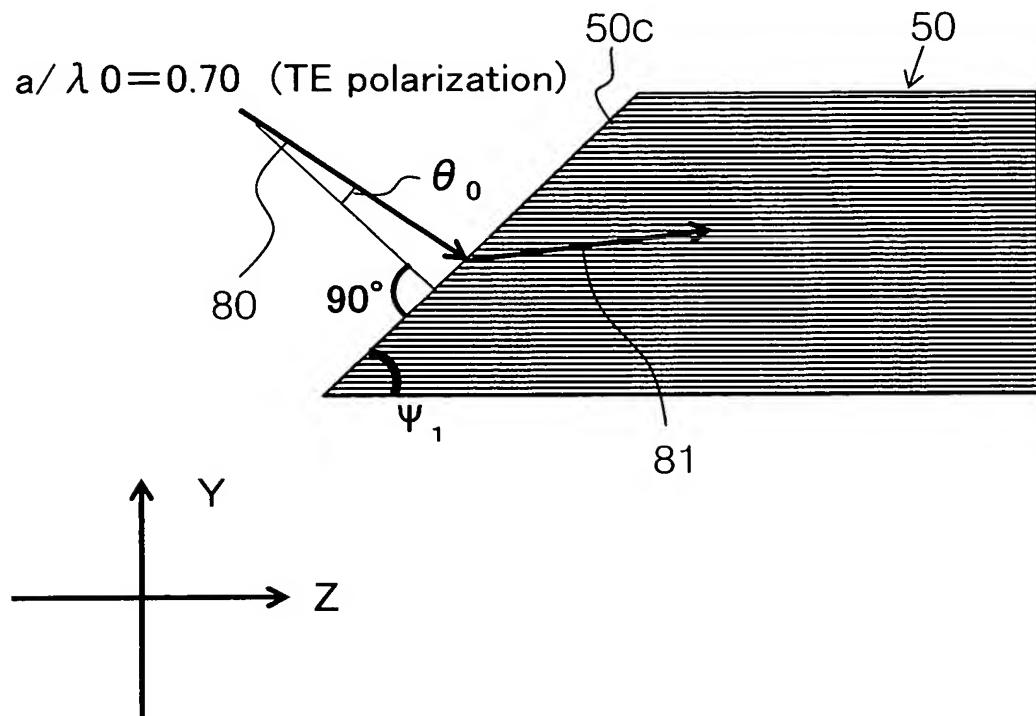


Fig. 19(b)

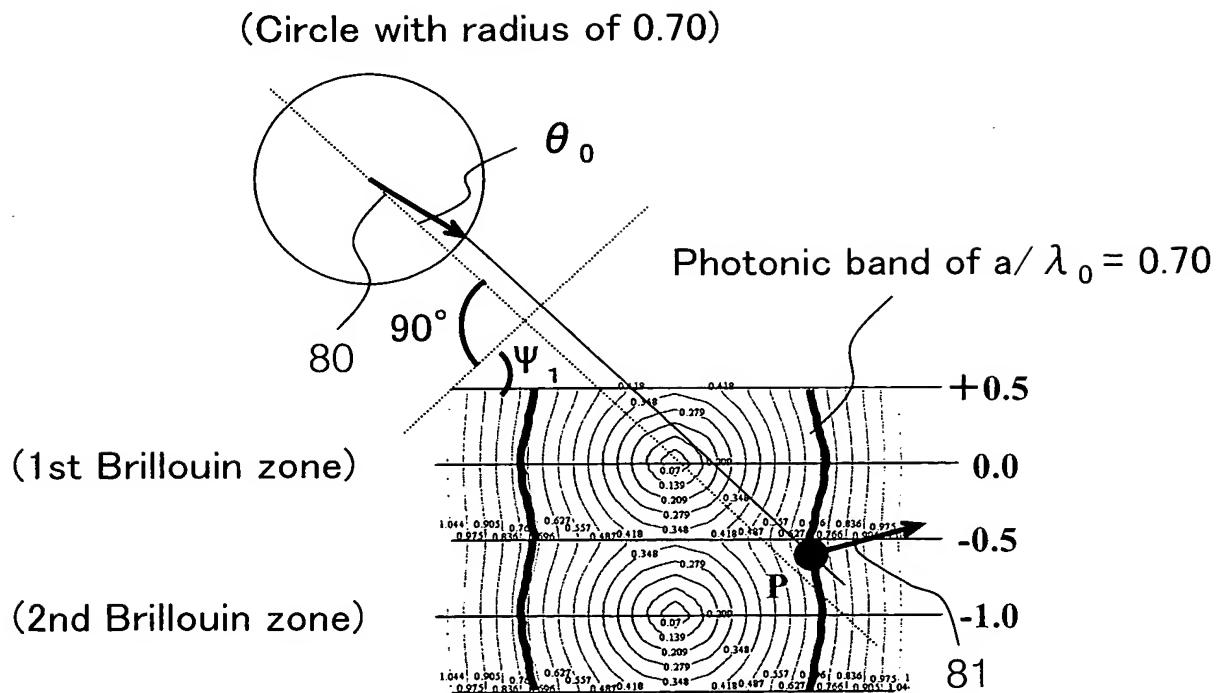
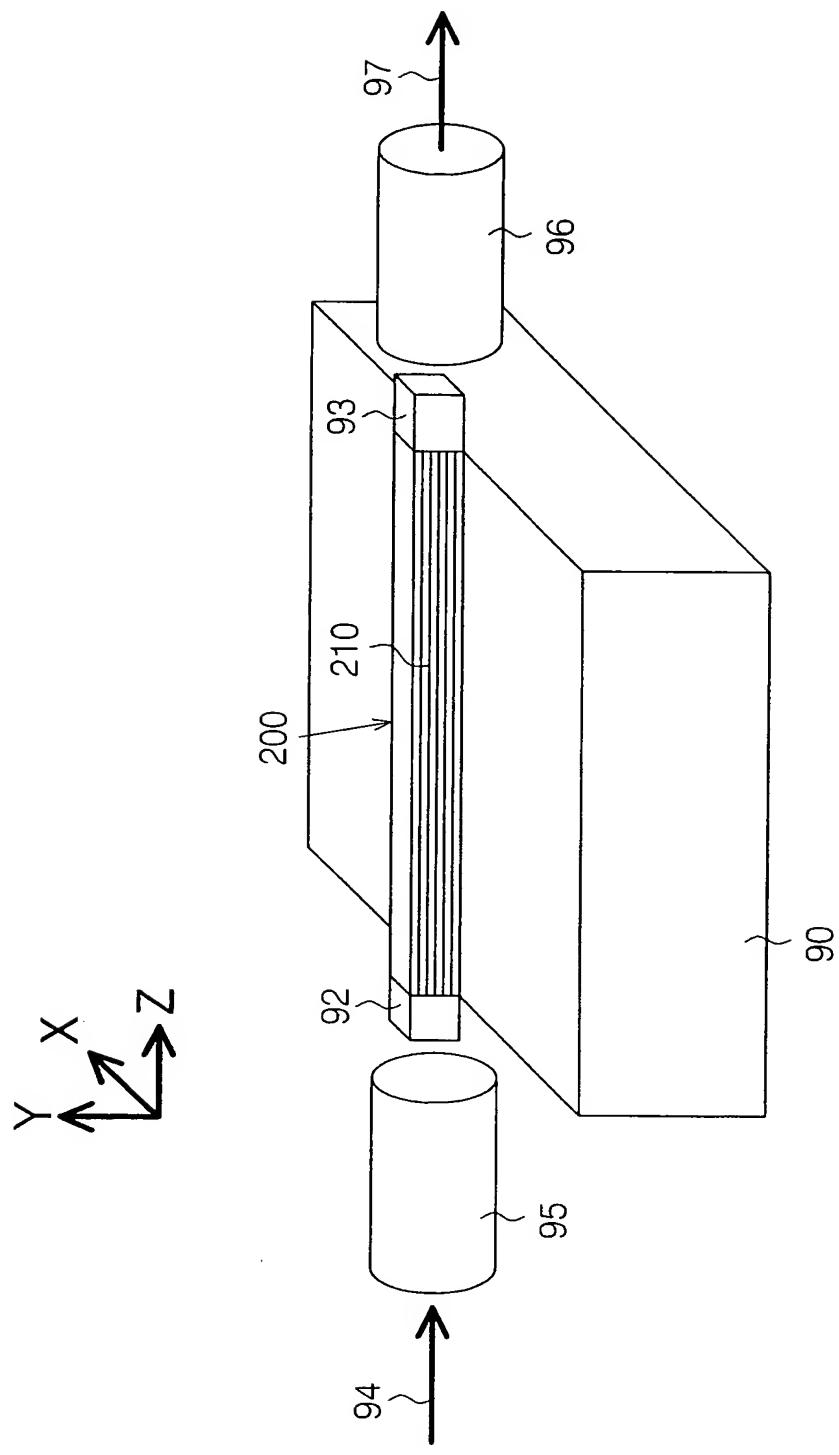


Fig.20



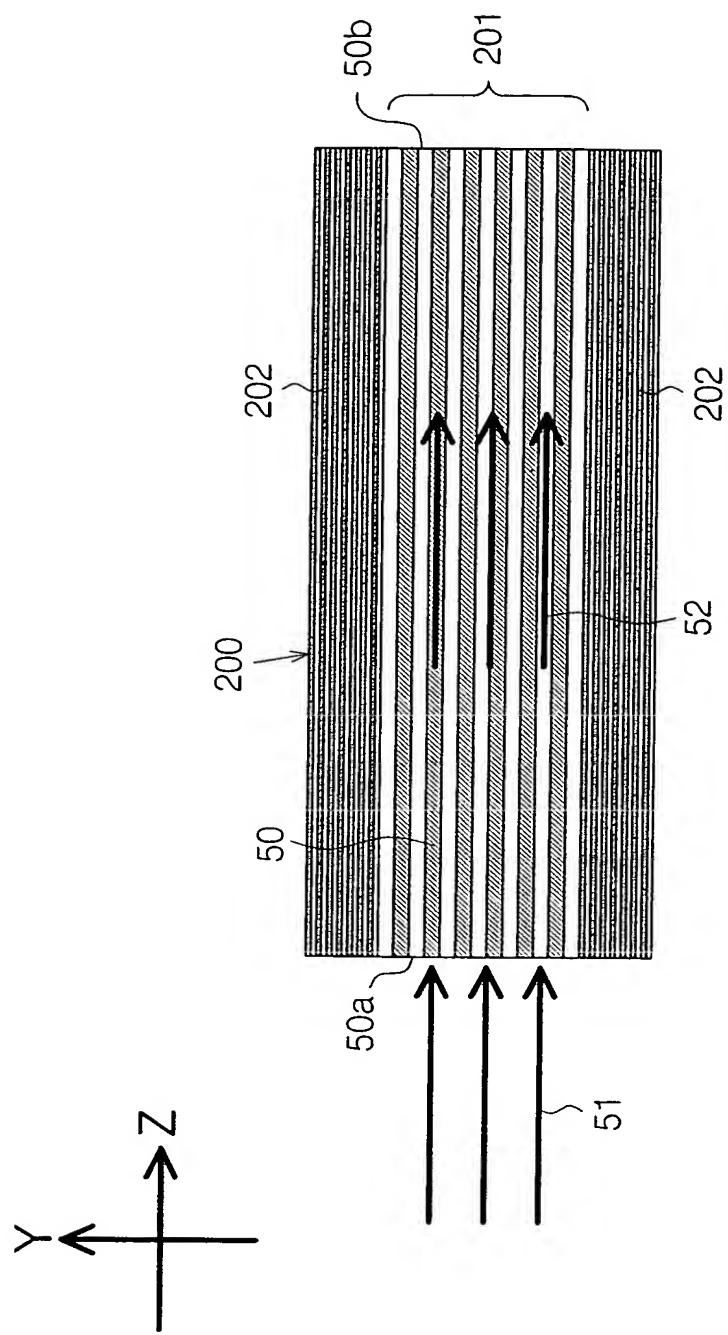


Fig.21

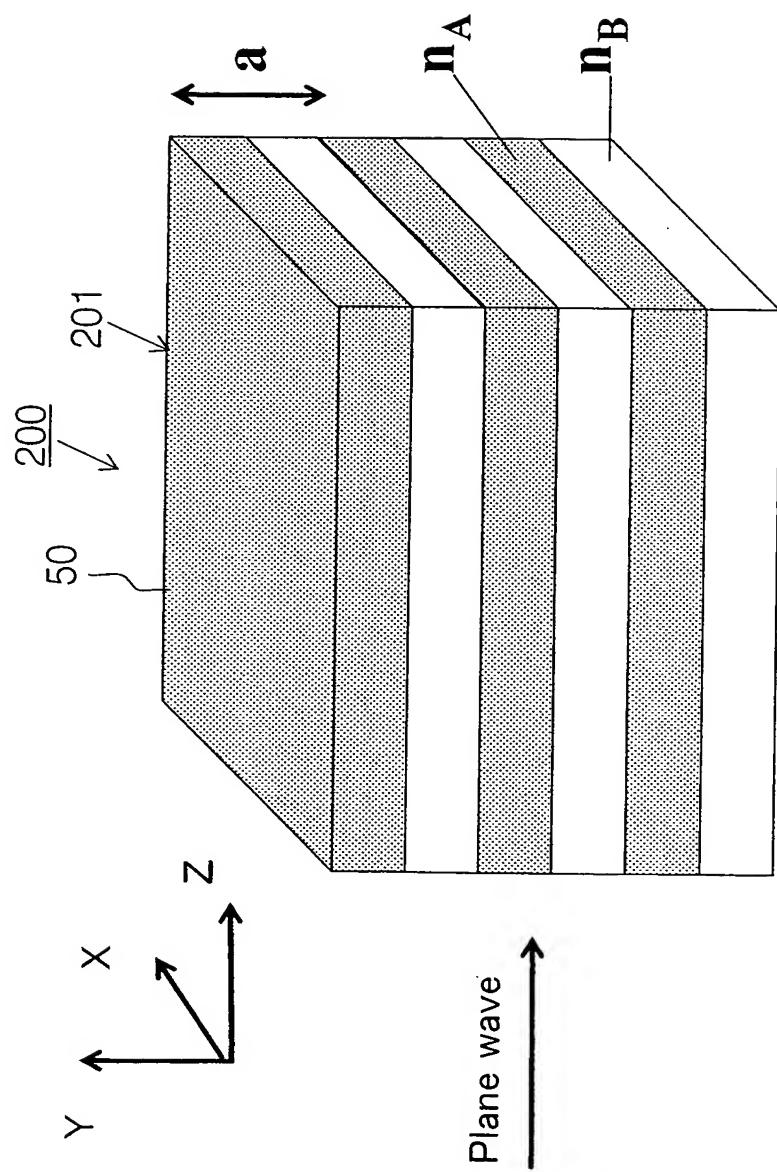


Fig. 22

Fig. 23

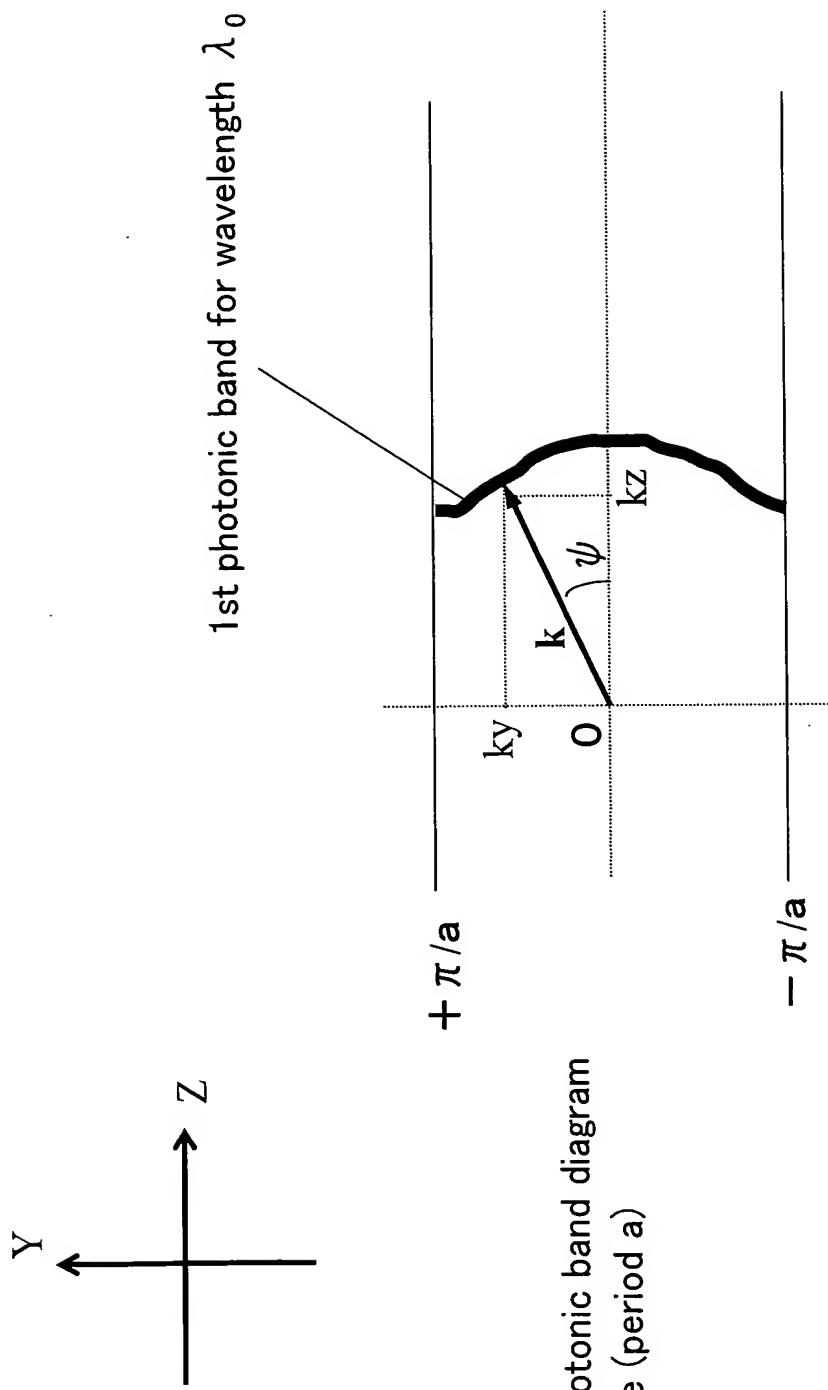


Fig. 24

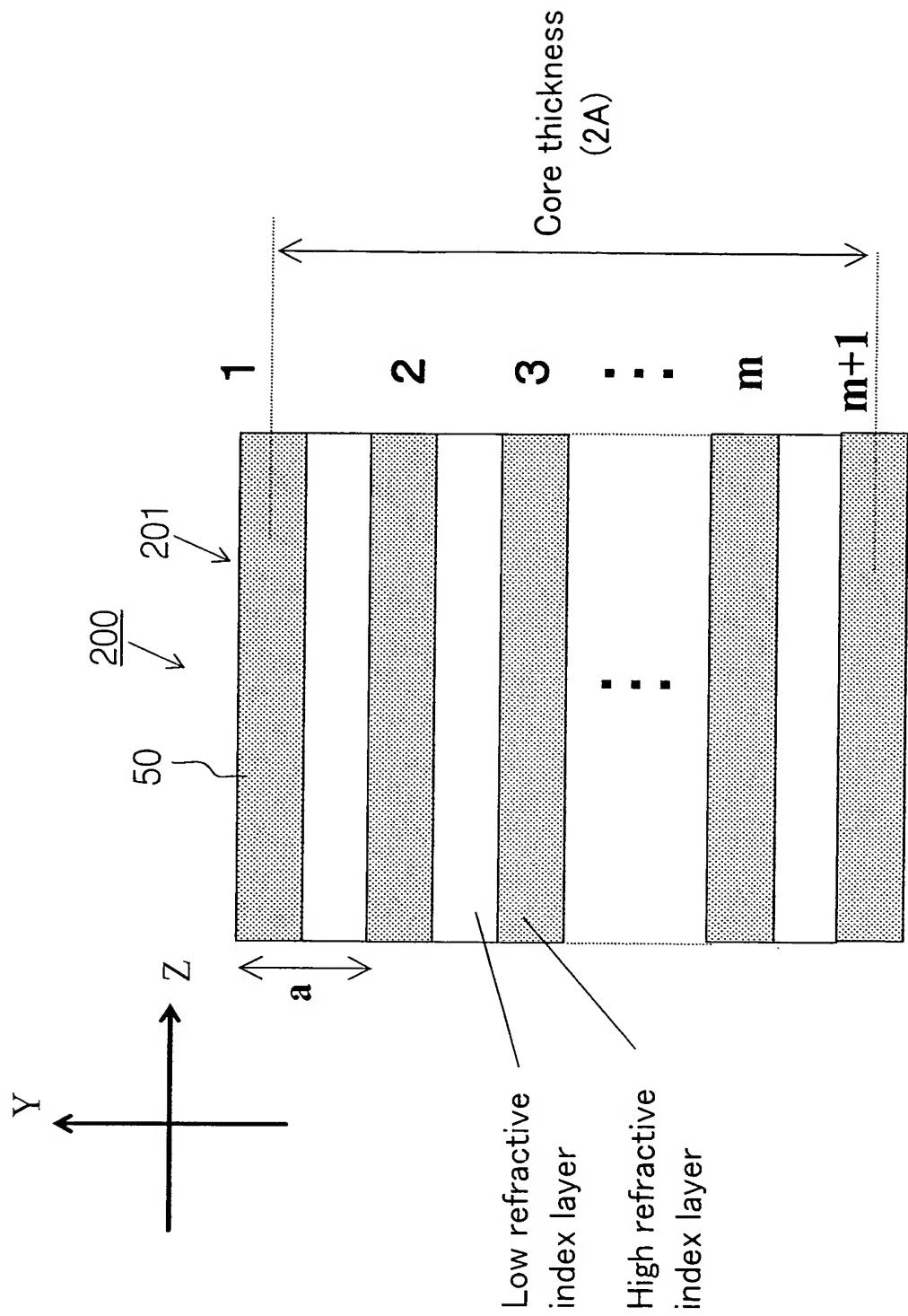


Fig. 25

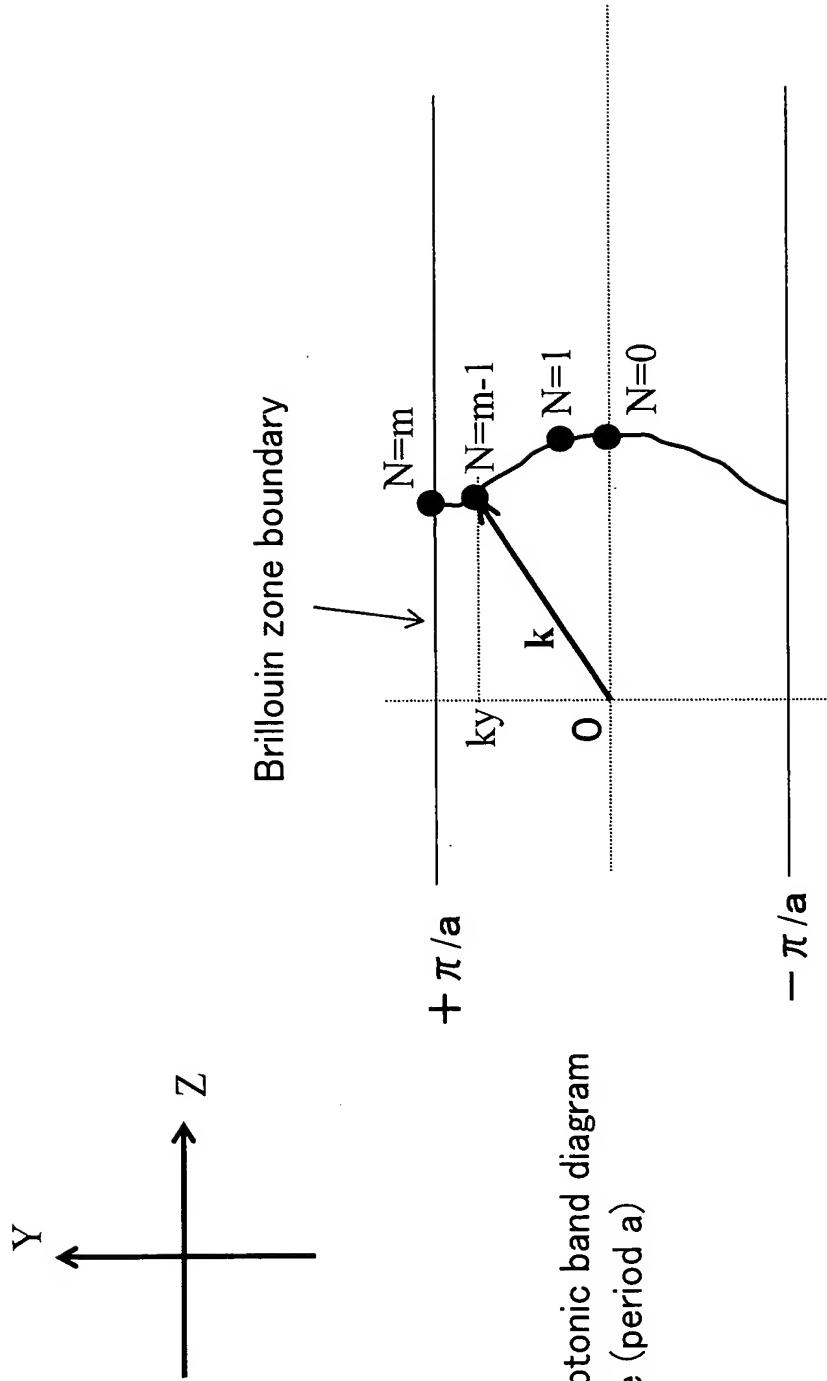


Fig. 26

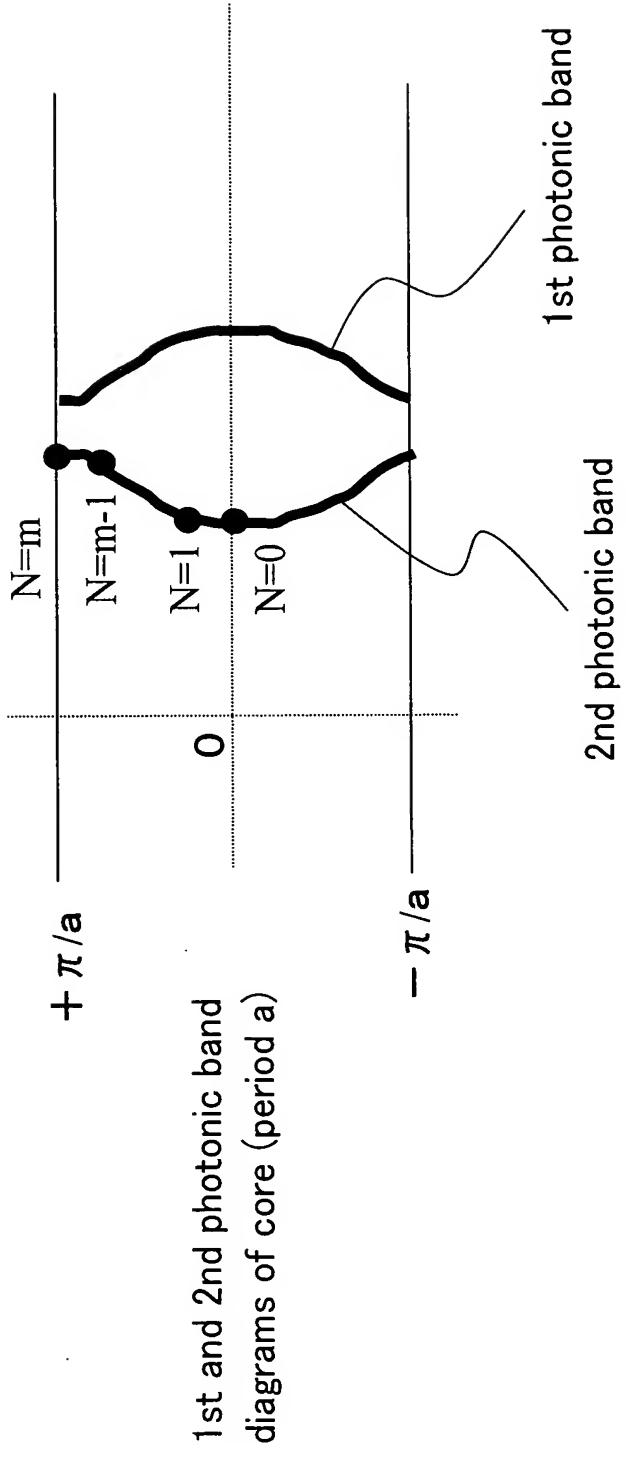


Fig. 27

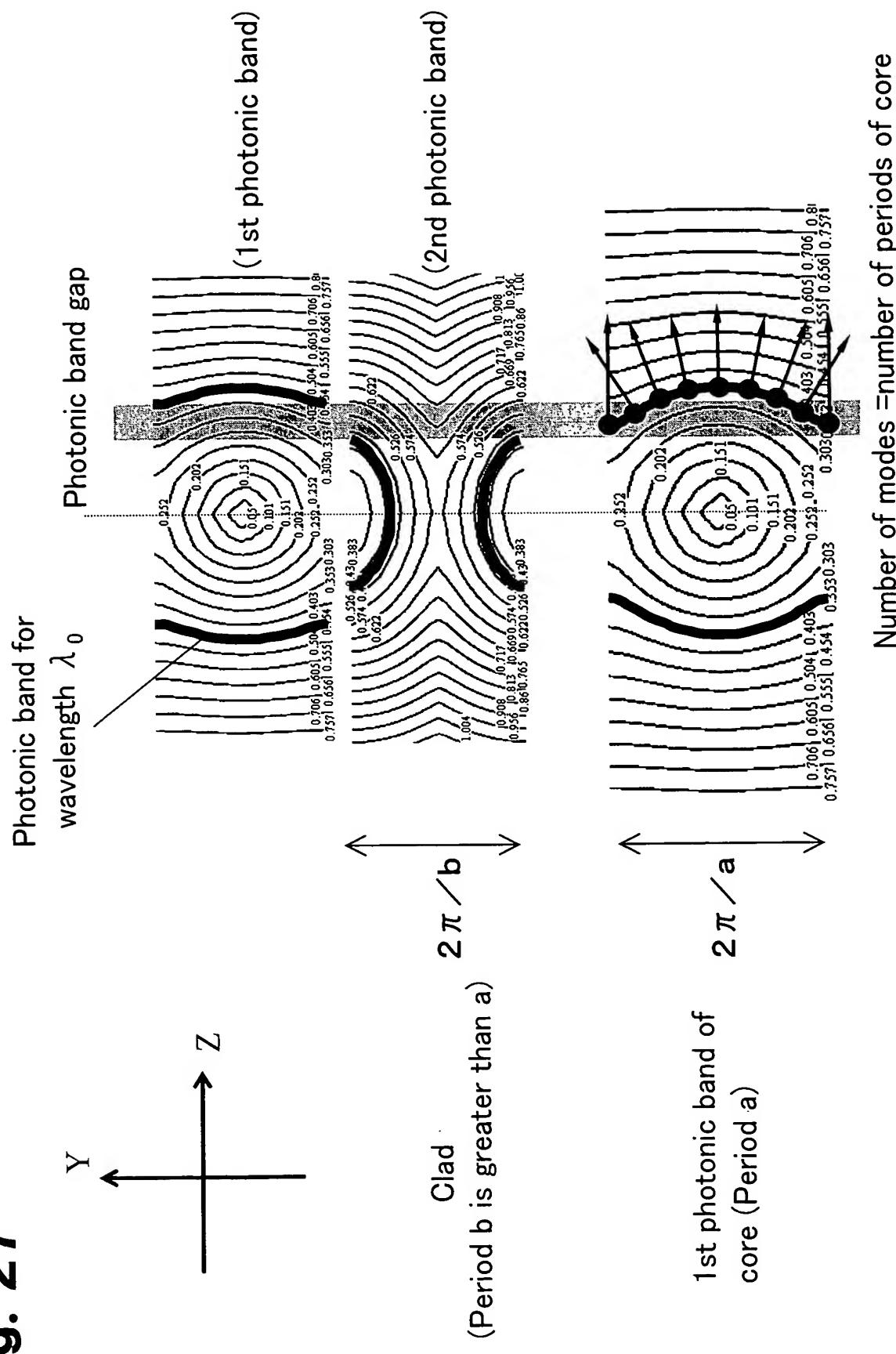


Fig. 28

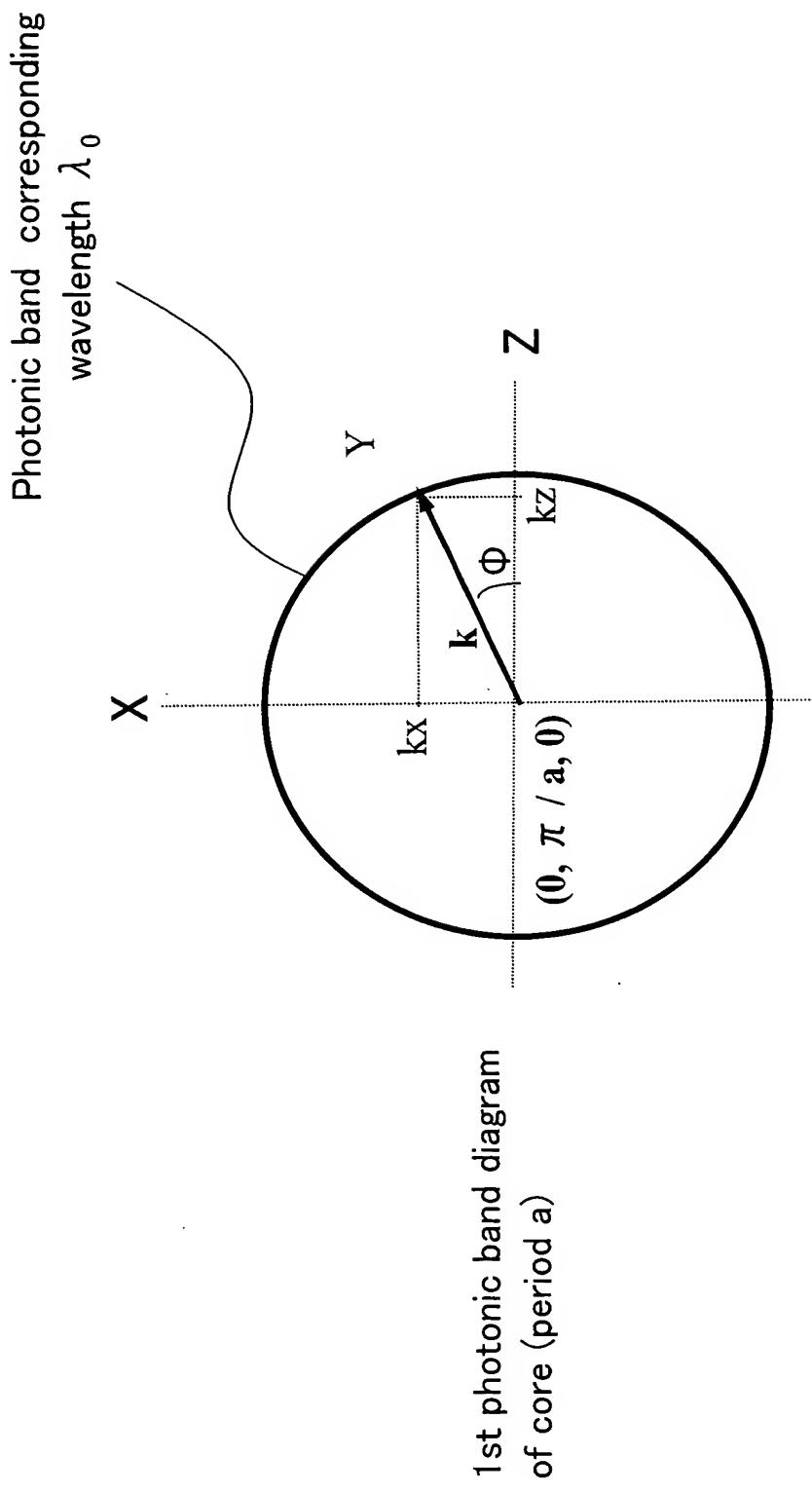


Fig. 29

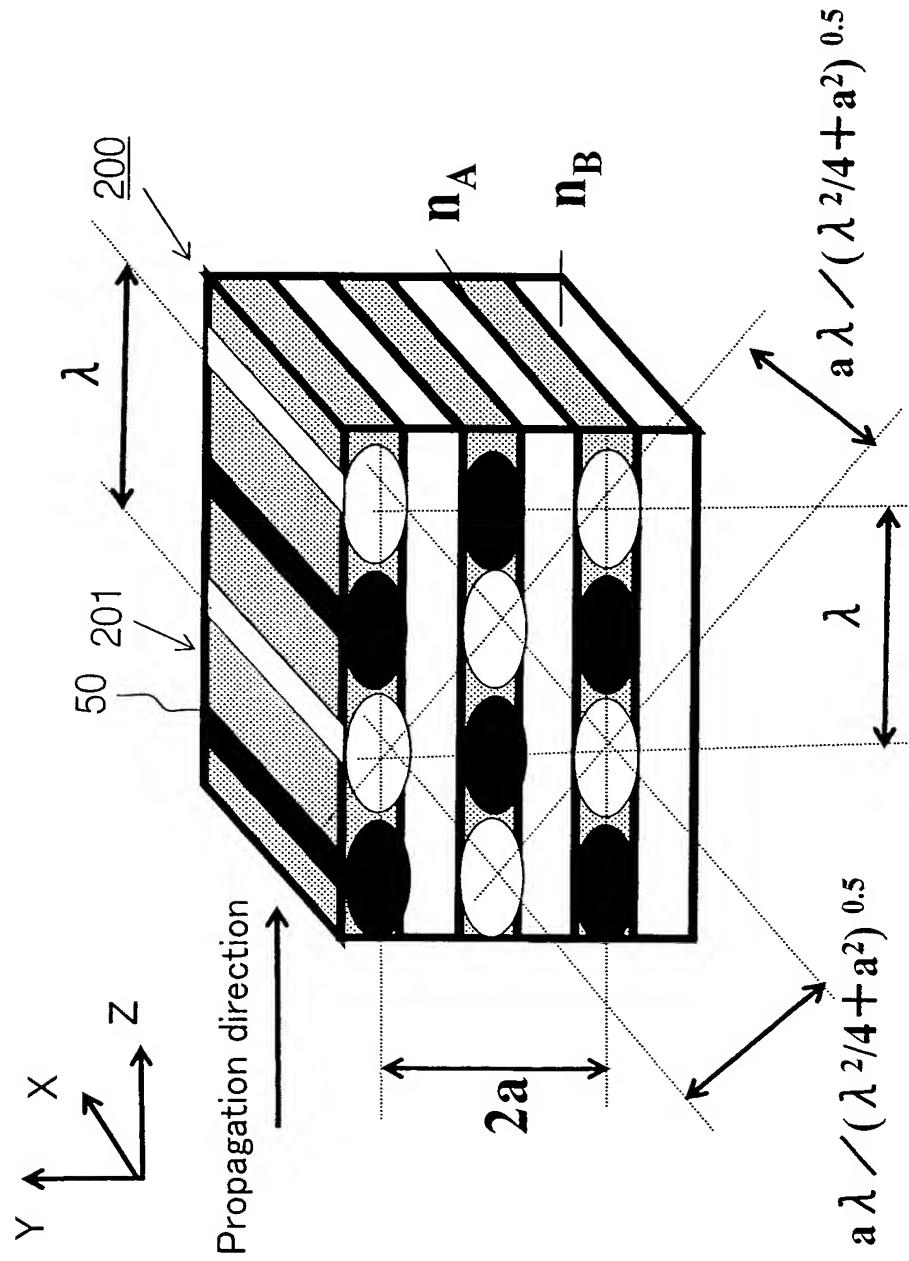


Fig. 30

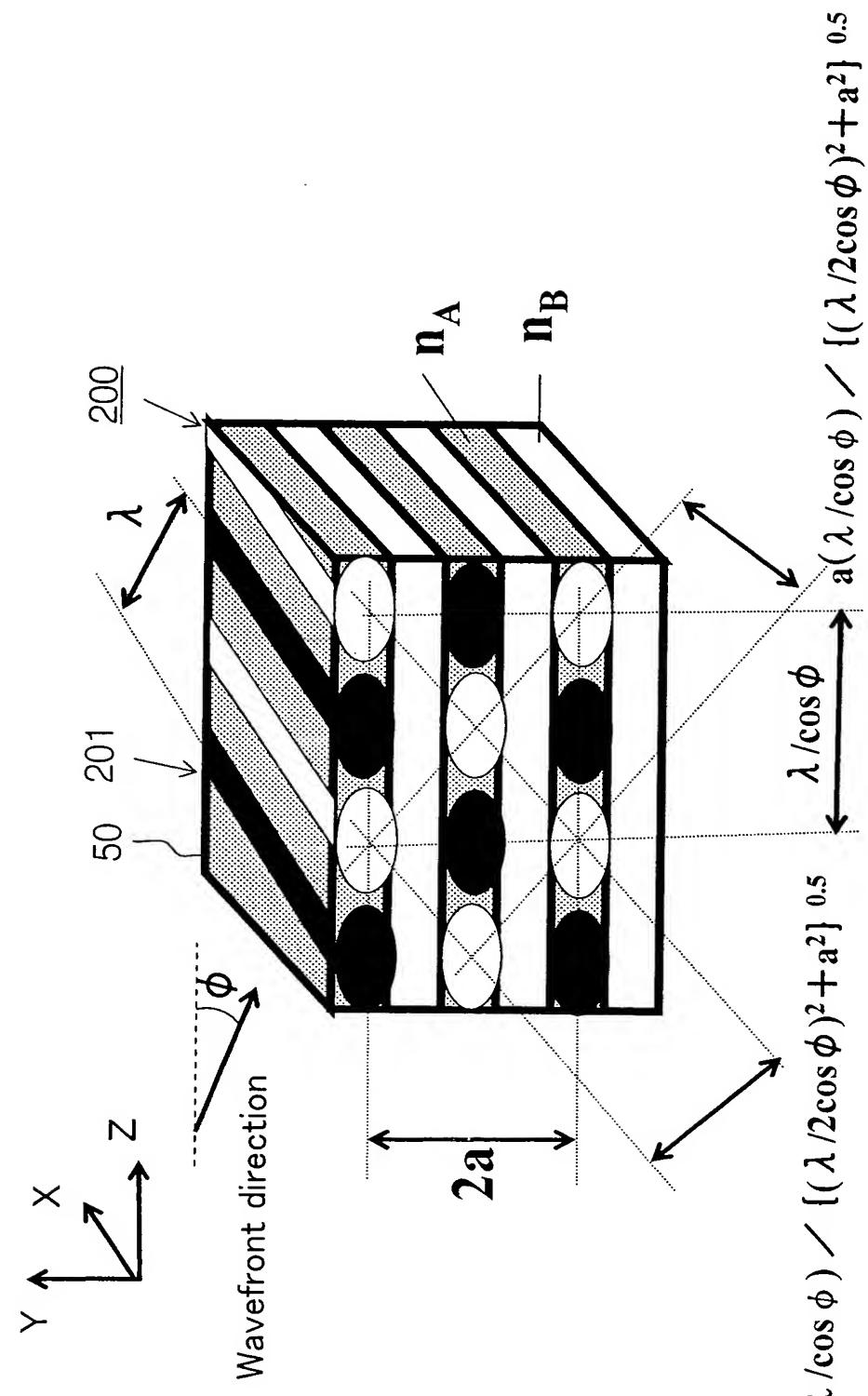


Fig. 31

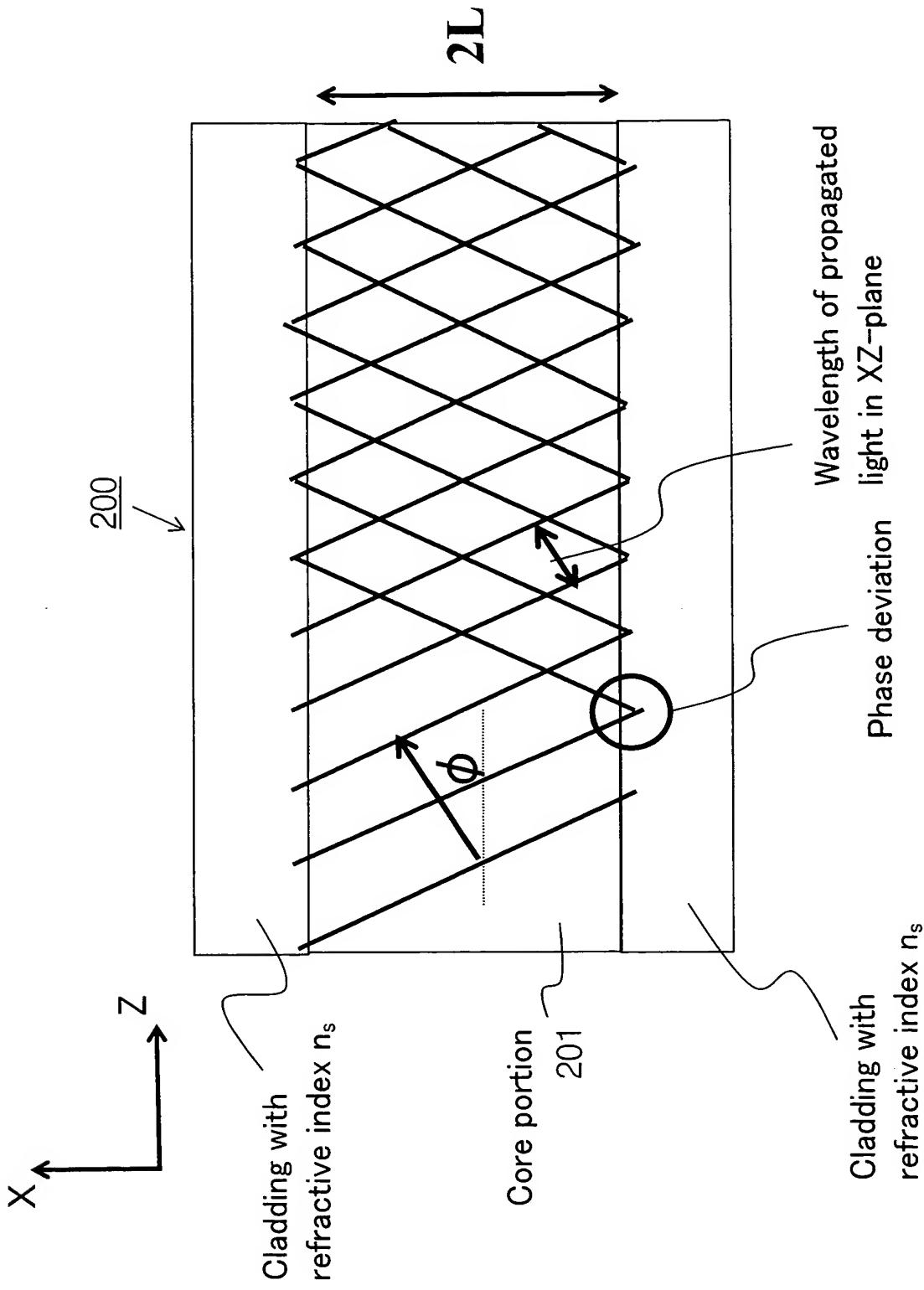


Fig. 32

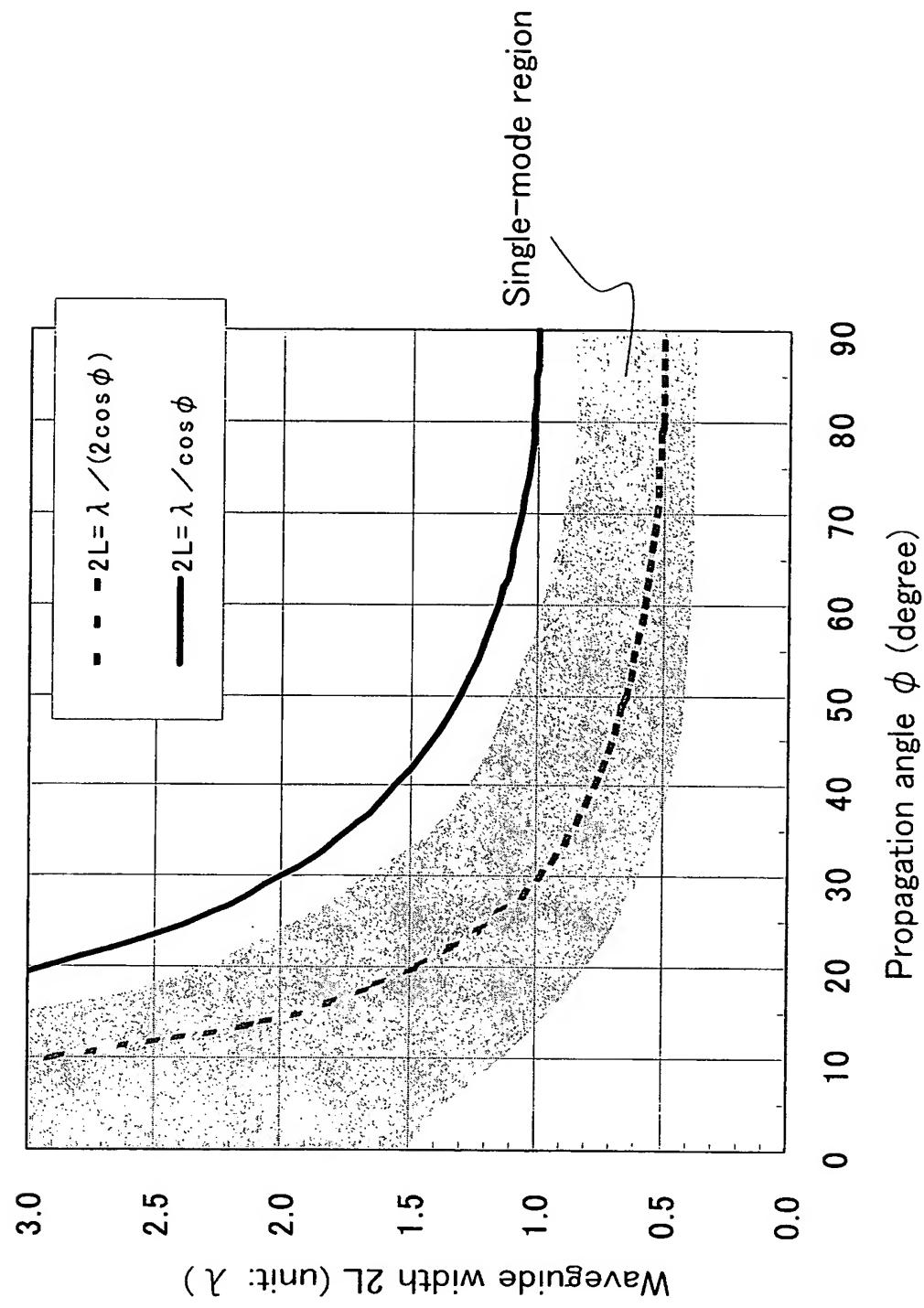


Fig. 33

$\lambda_0 = 1550\text{nm}$ $a/\lambda_0 = 0.28$ $n_{\text{eff}} = 0.3$ $ns = 1.45$

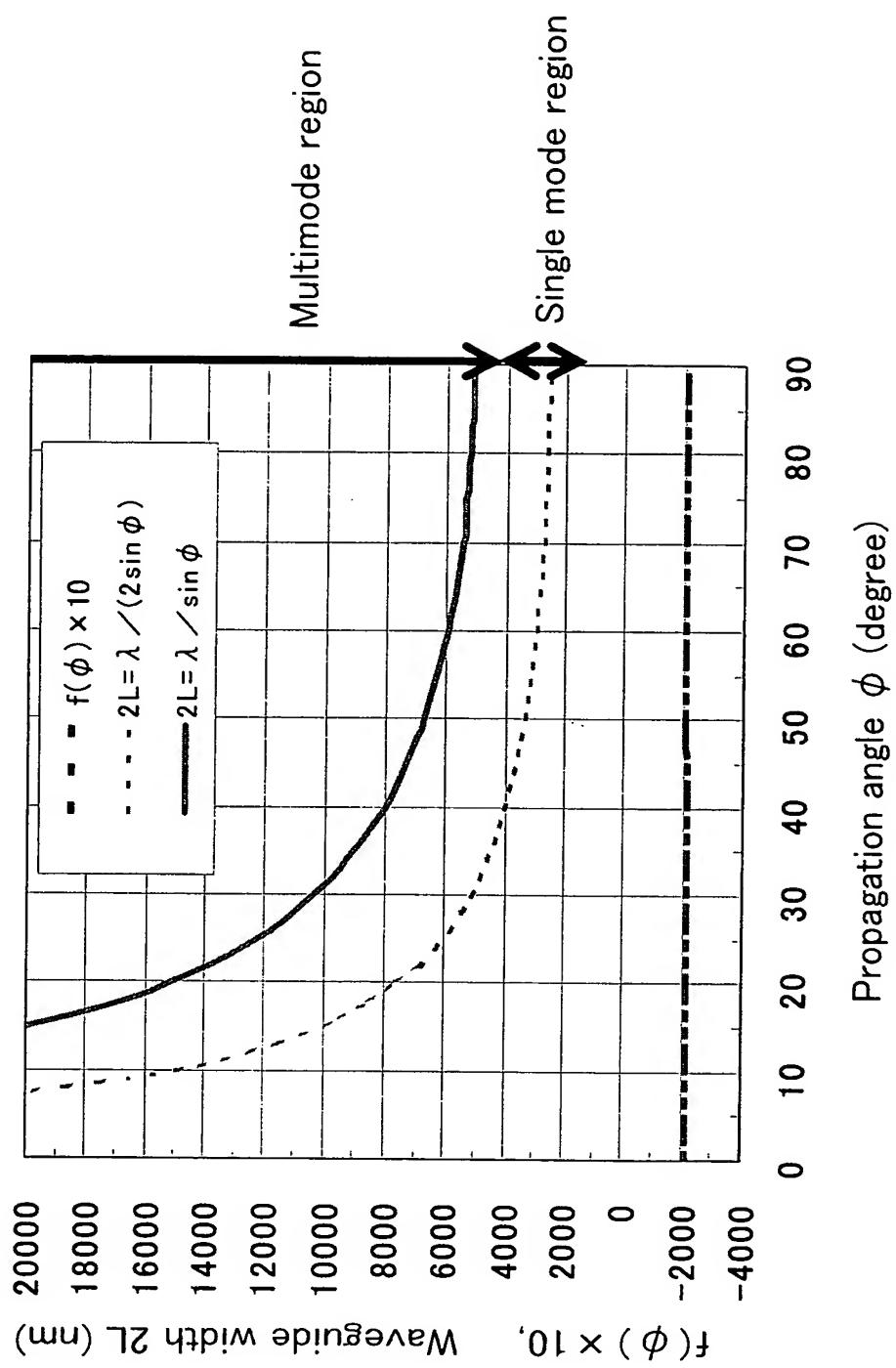


Fig. 34

$\lambda_0 = 1550\text{nm}$ $a/\lambda_0 = 0.50$ $n_{\text{eff}} = 1.10$ $n_s = 1.45$

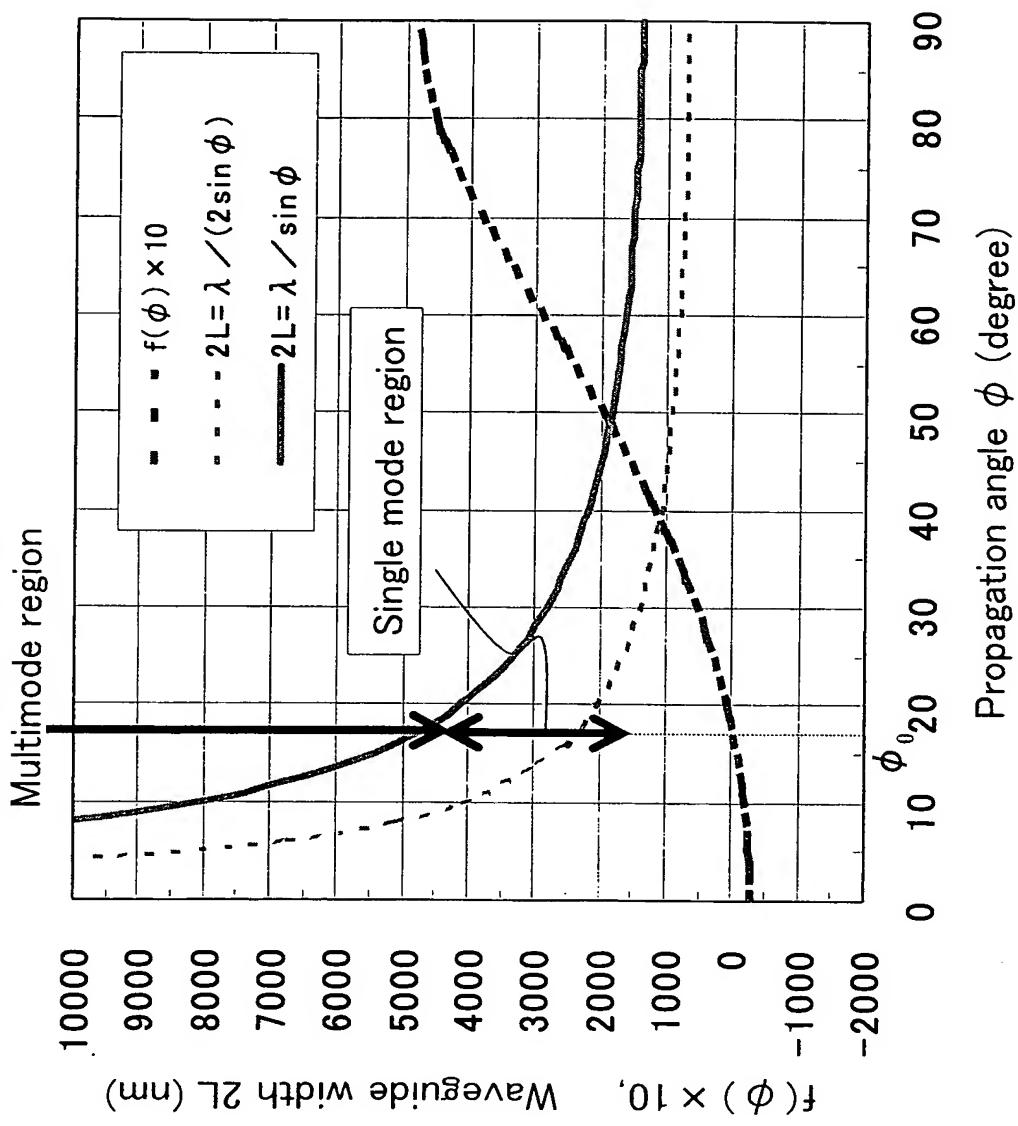


Fig. 35

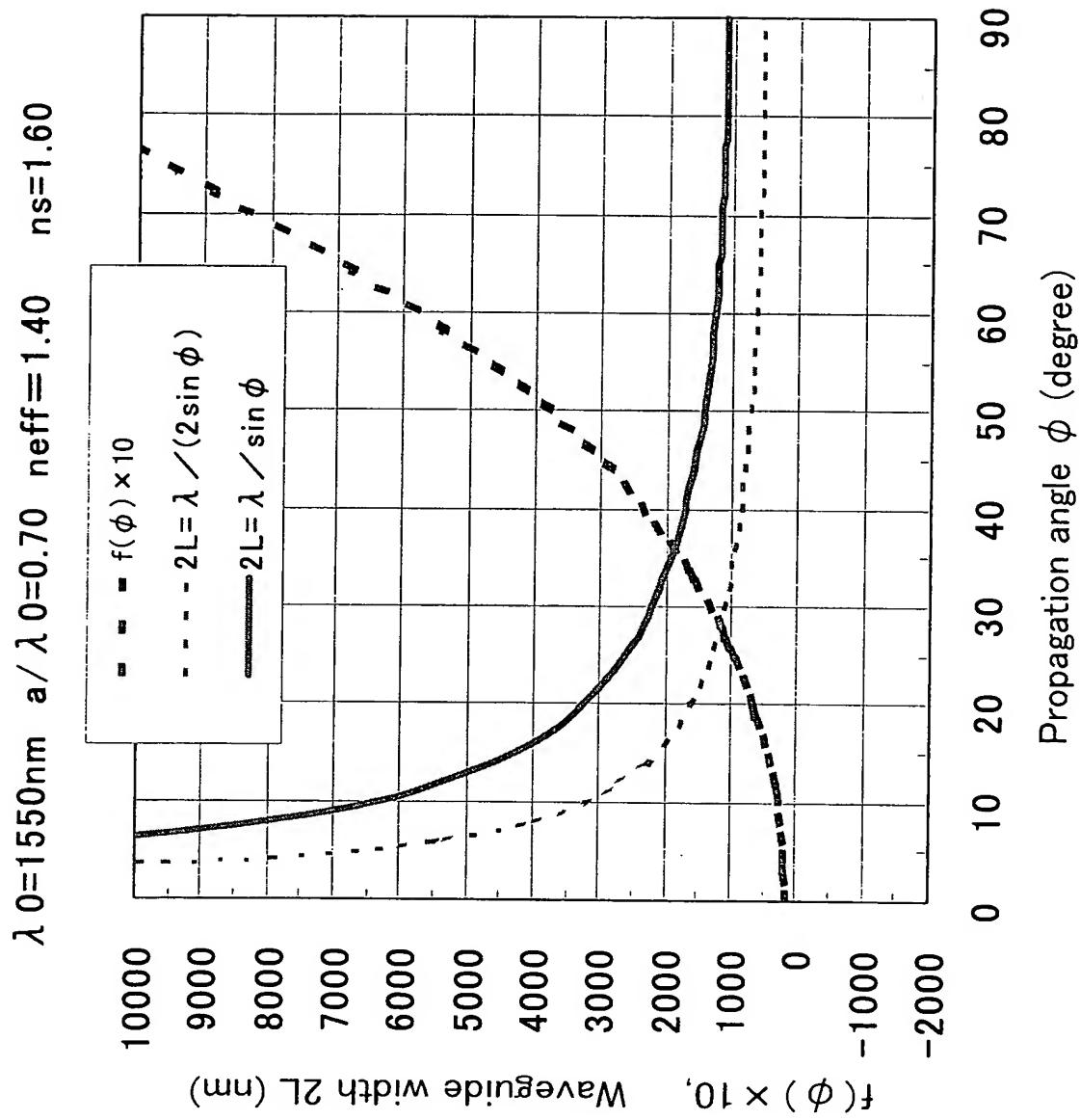


Fig. 36

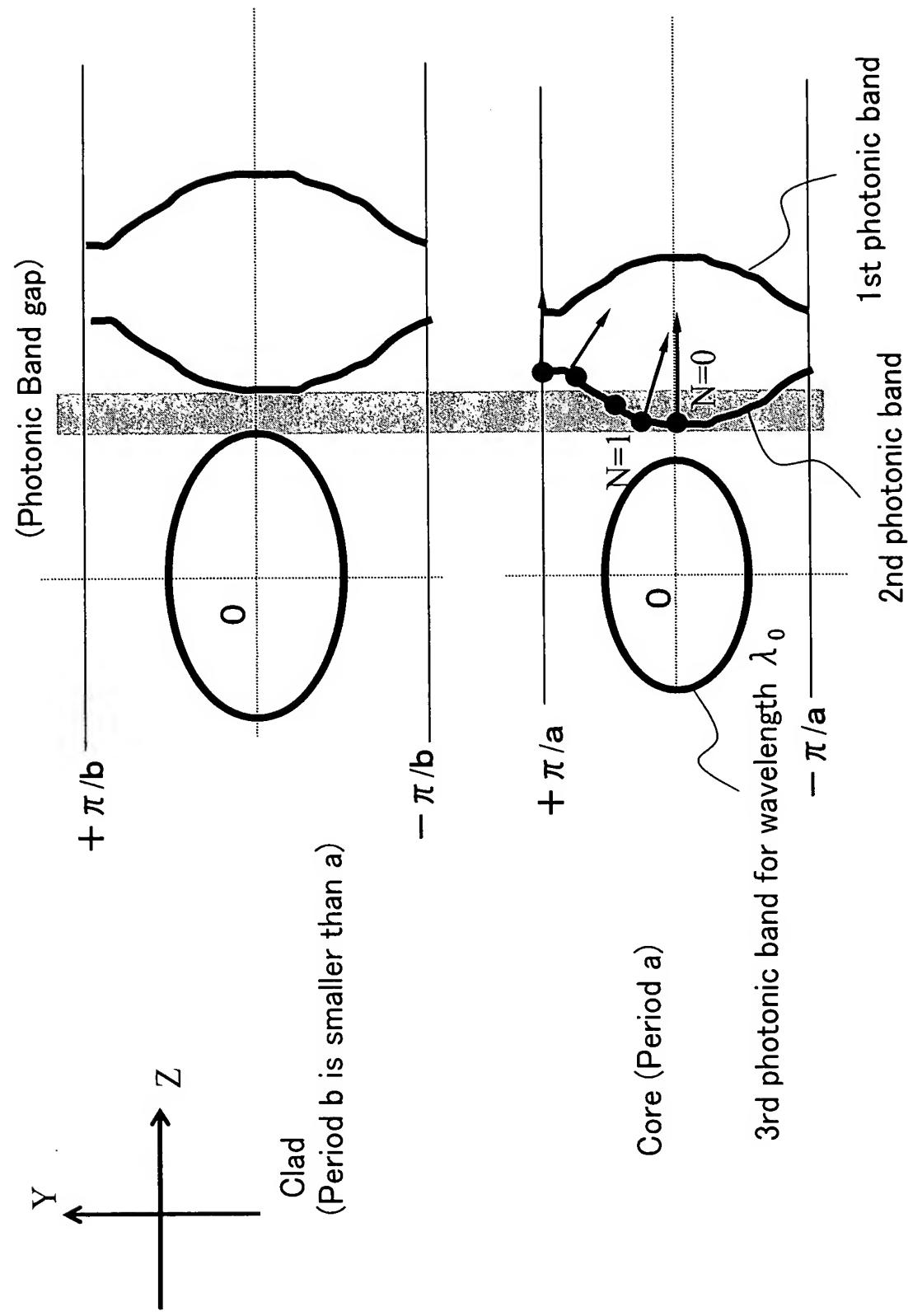


Fig. 37

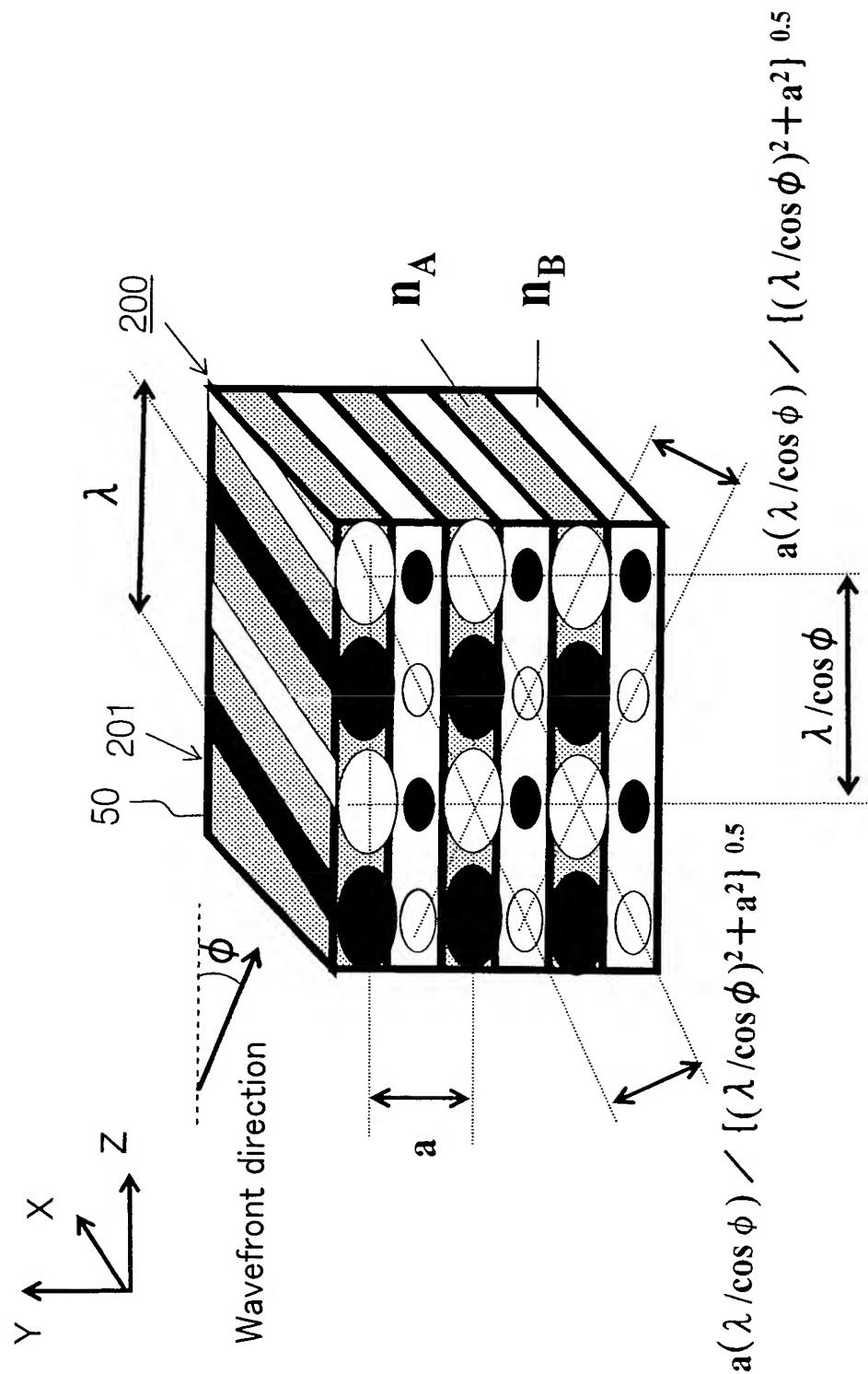


Fig. 38

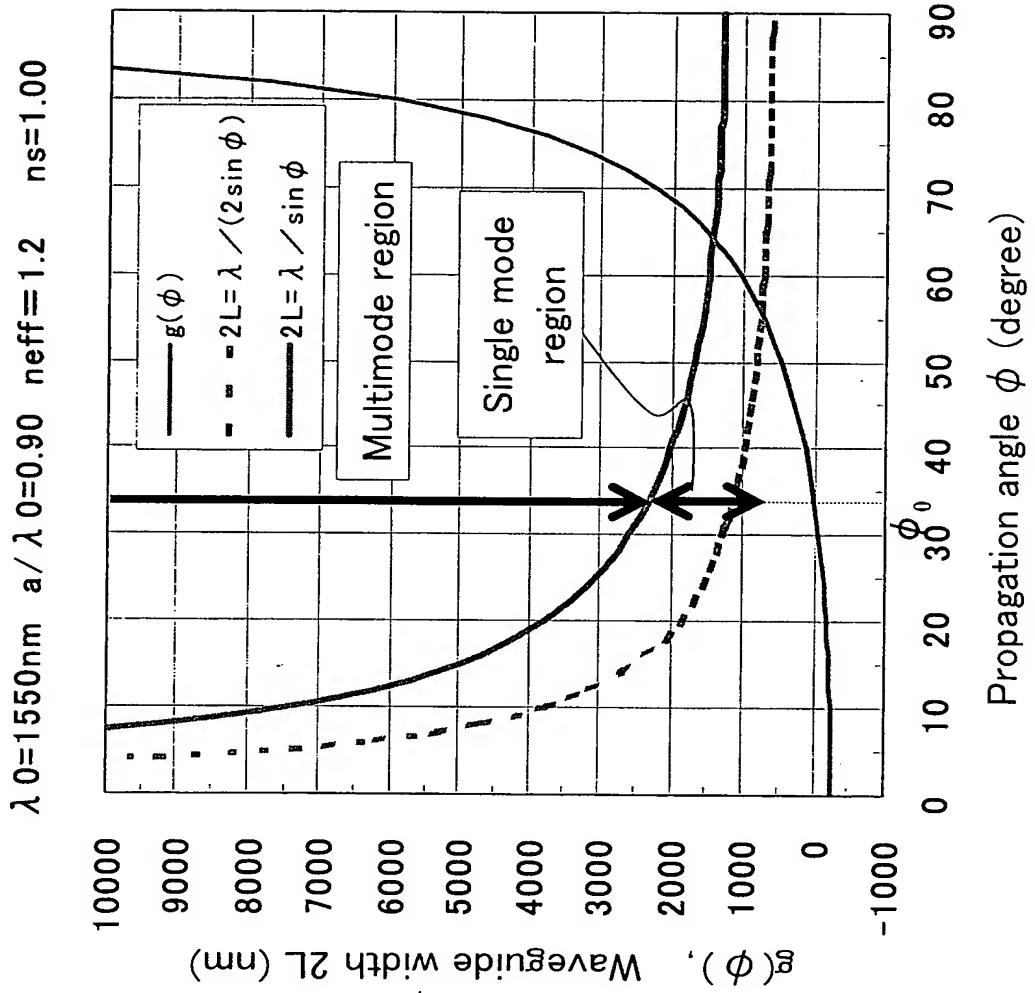


Fig. 39

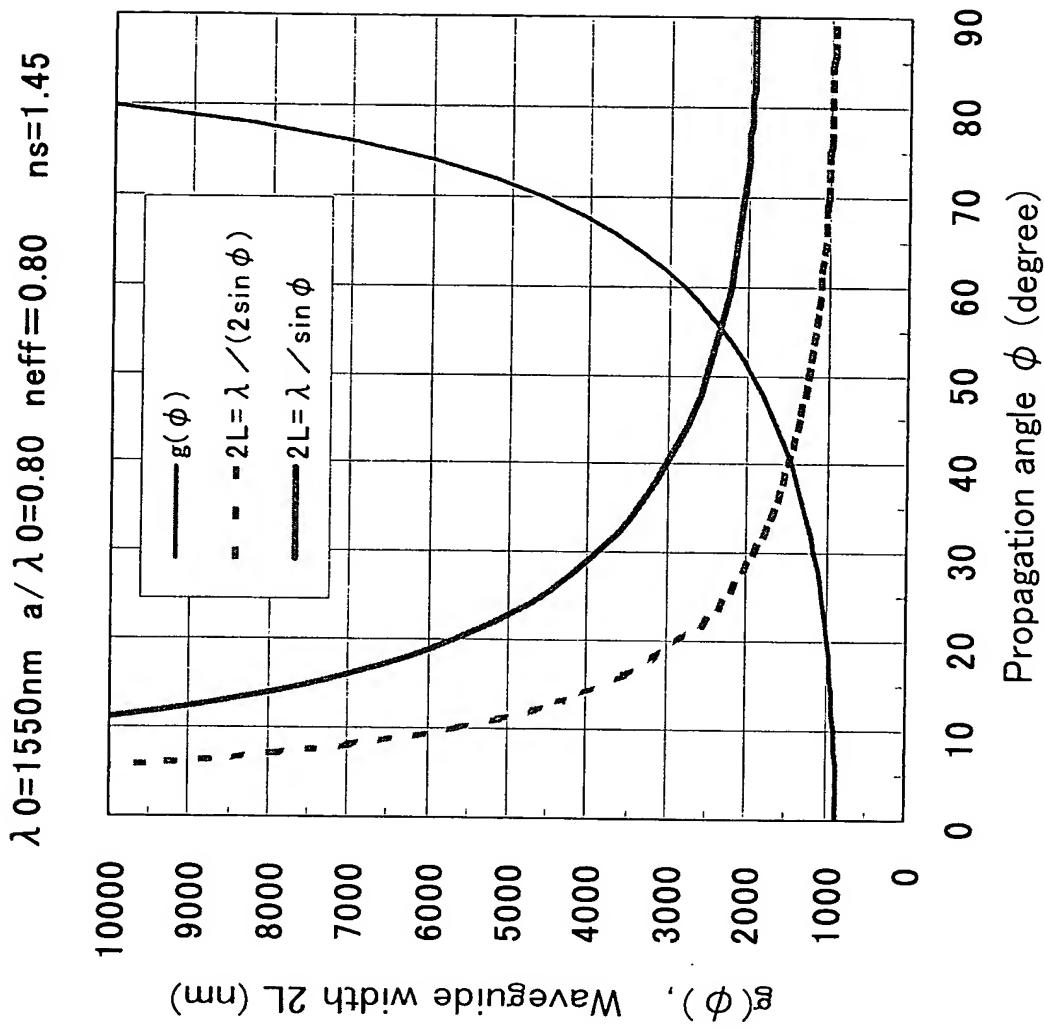


Fig. 40

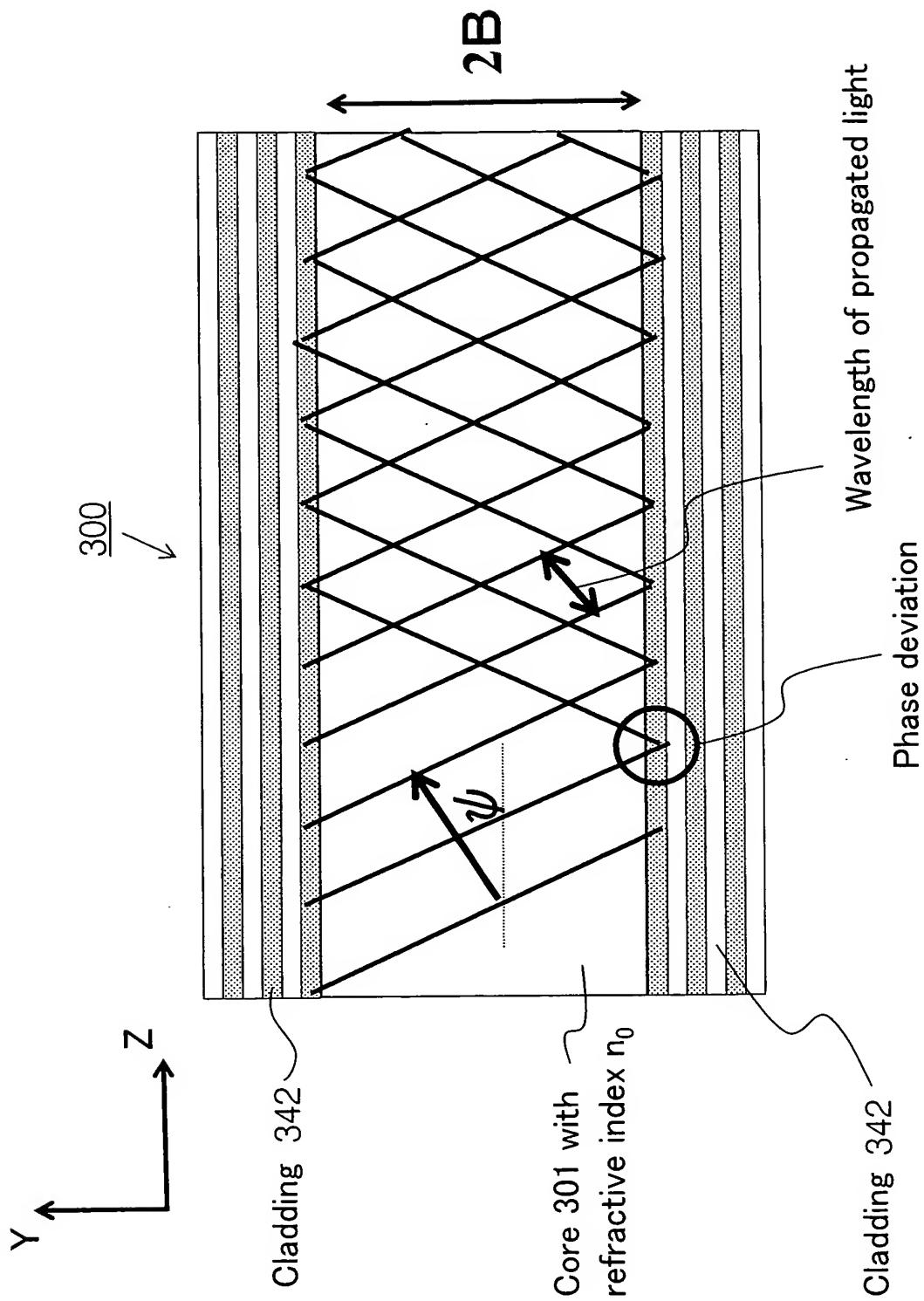


Fig. 41

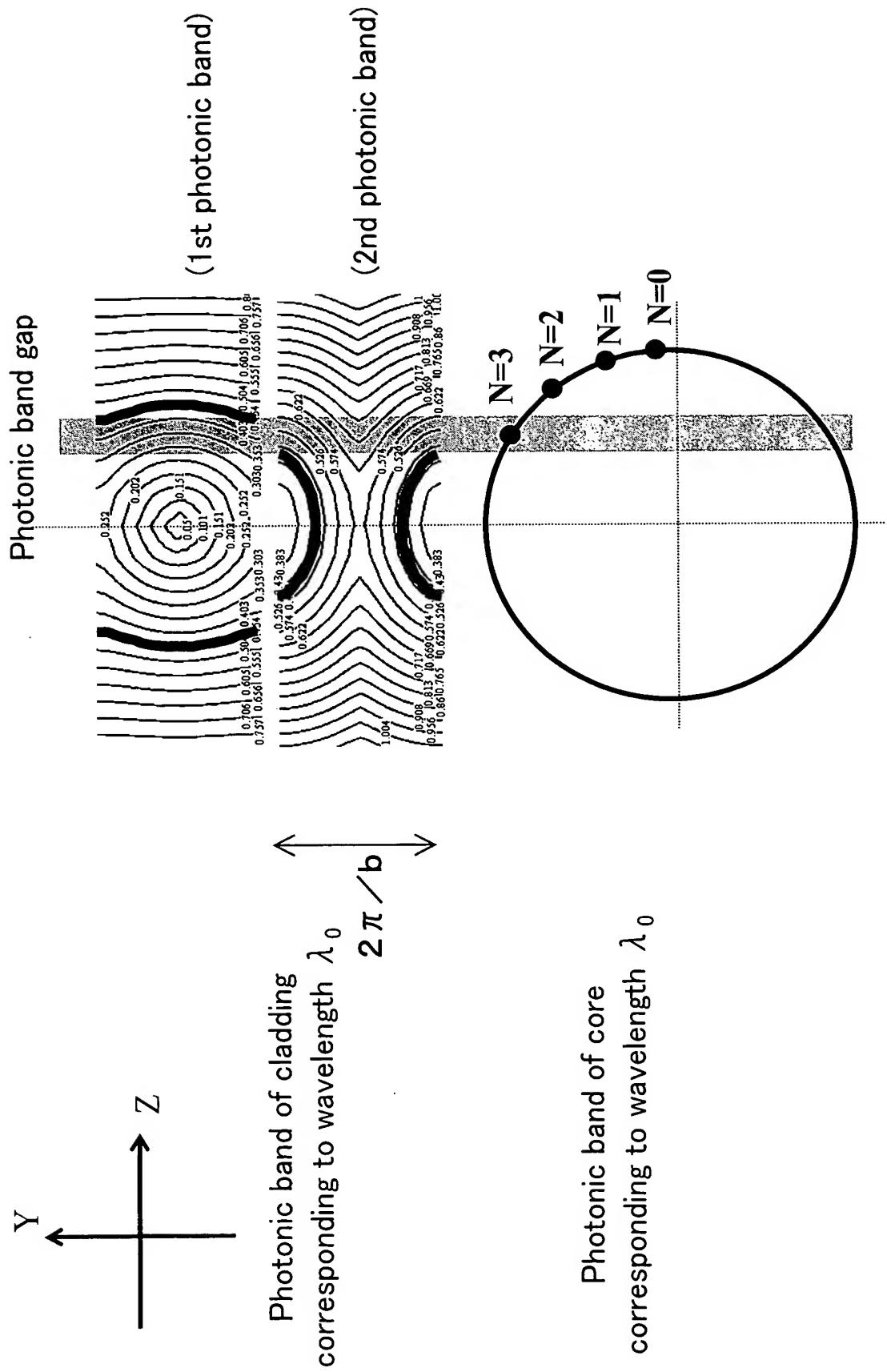


Fig. 42

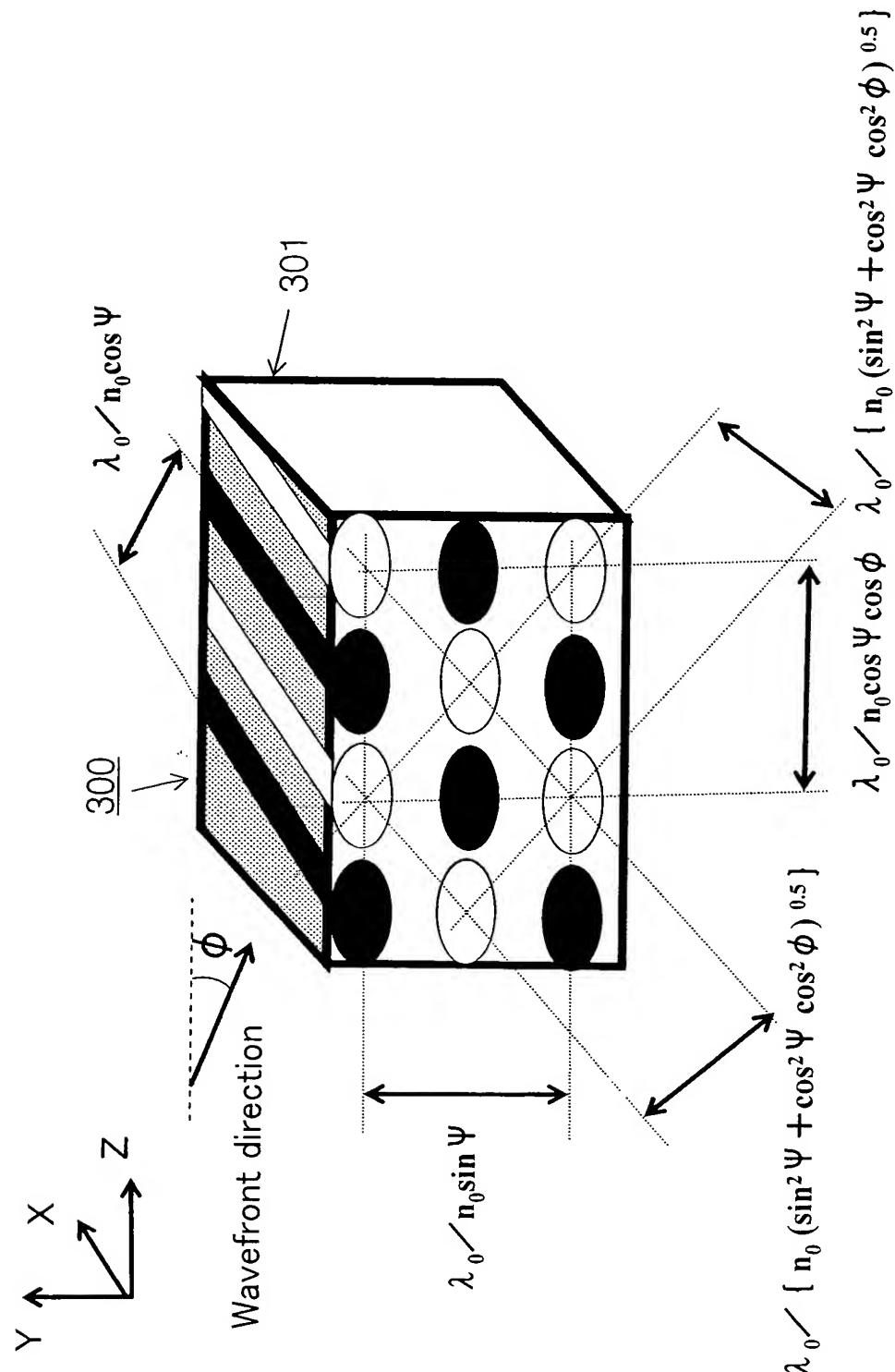


Fig. 43

$\lambda_0 = 1550 \text{ nm}$ $\psi = 56^\circ$ $n_0 = 1.45$ $n_s = 1.00$

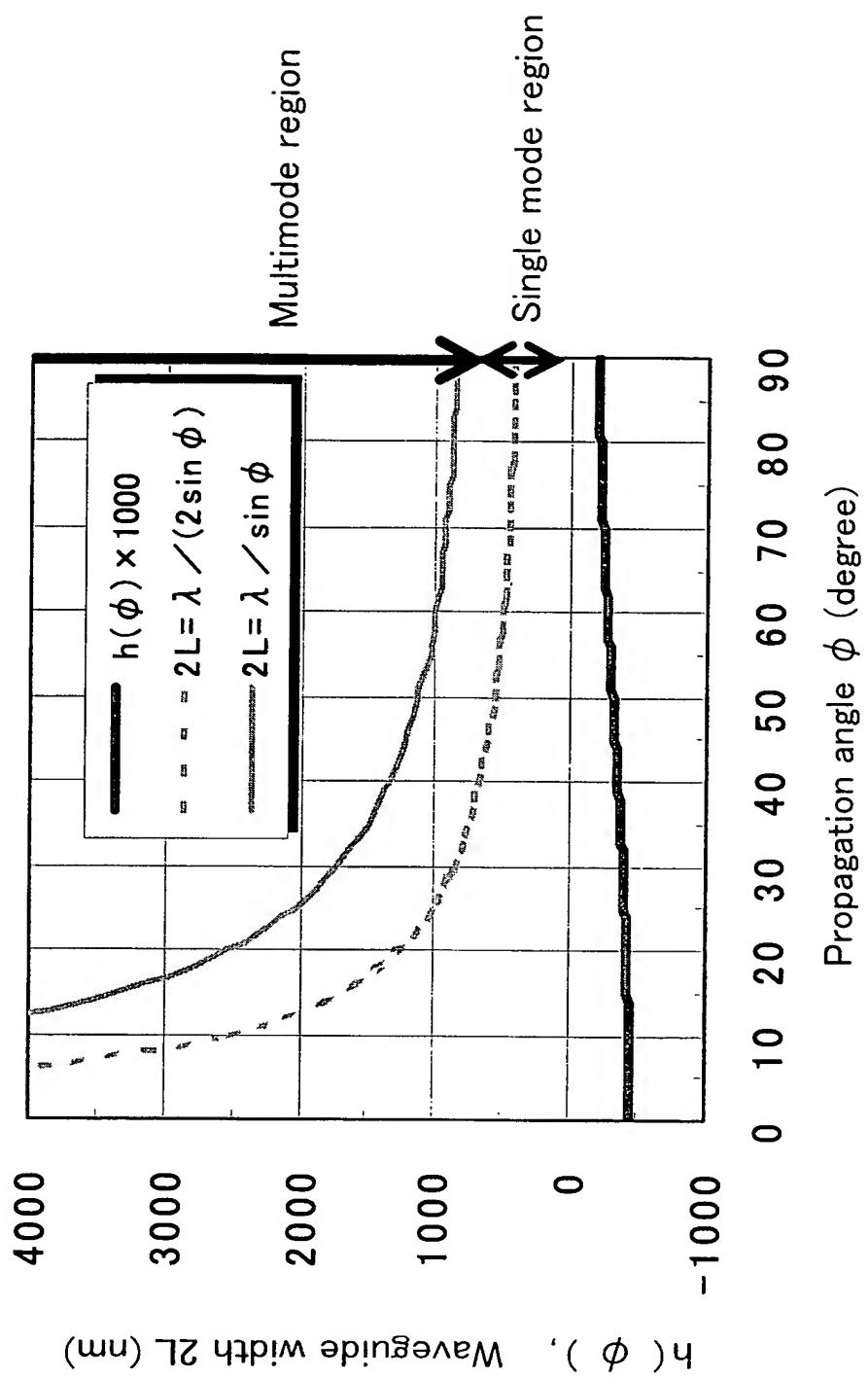


Fig. 44

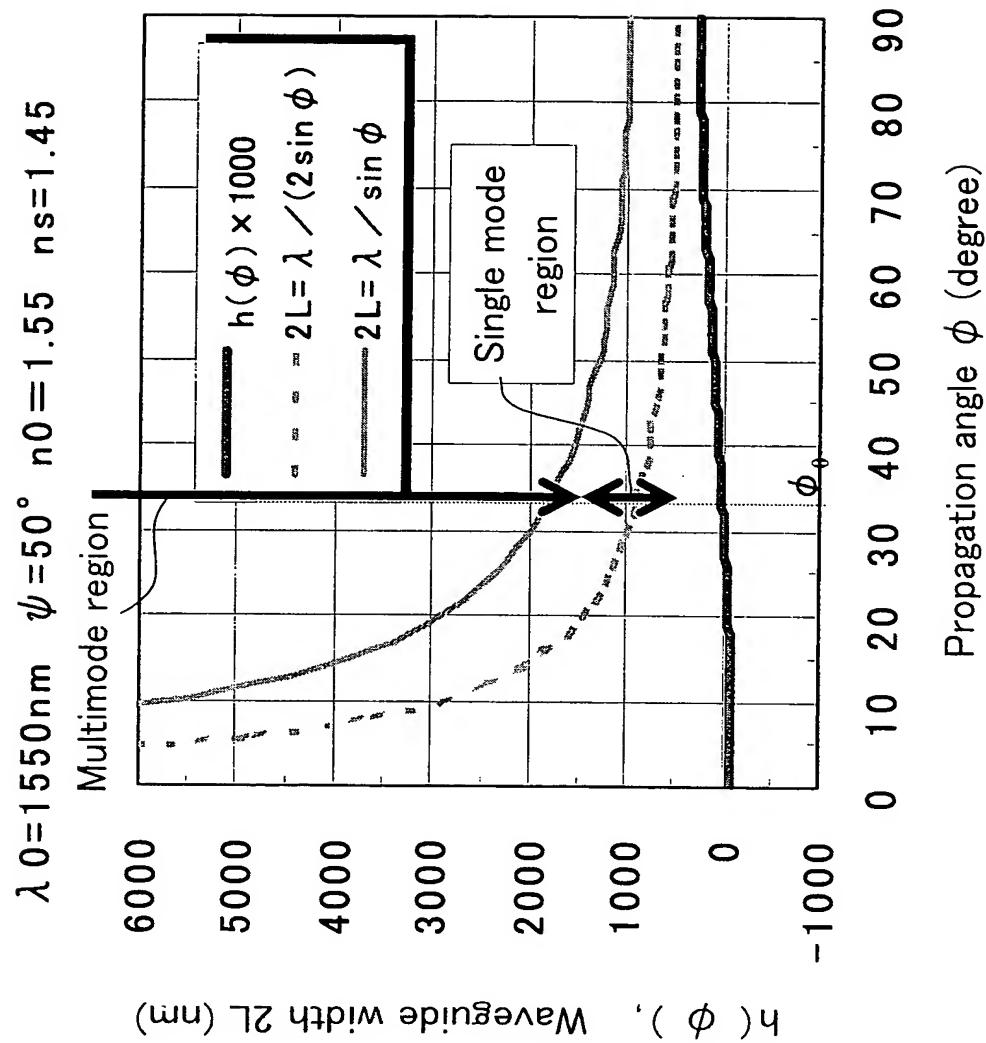
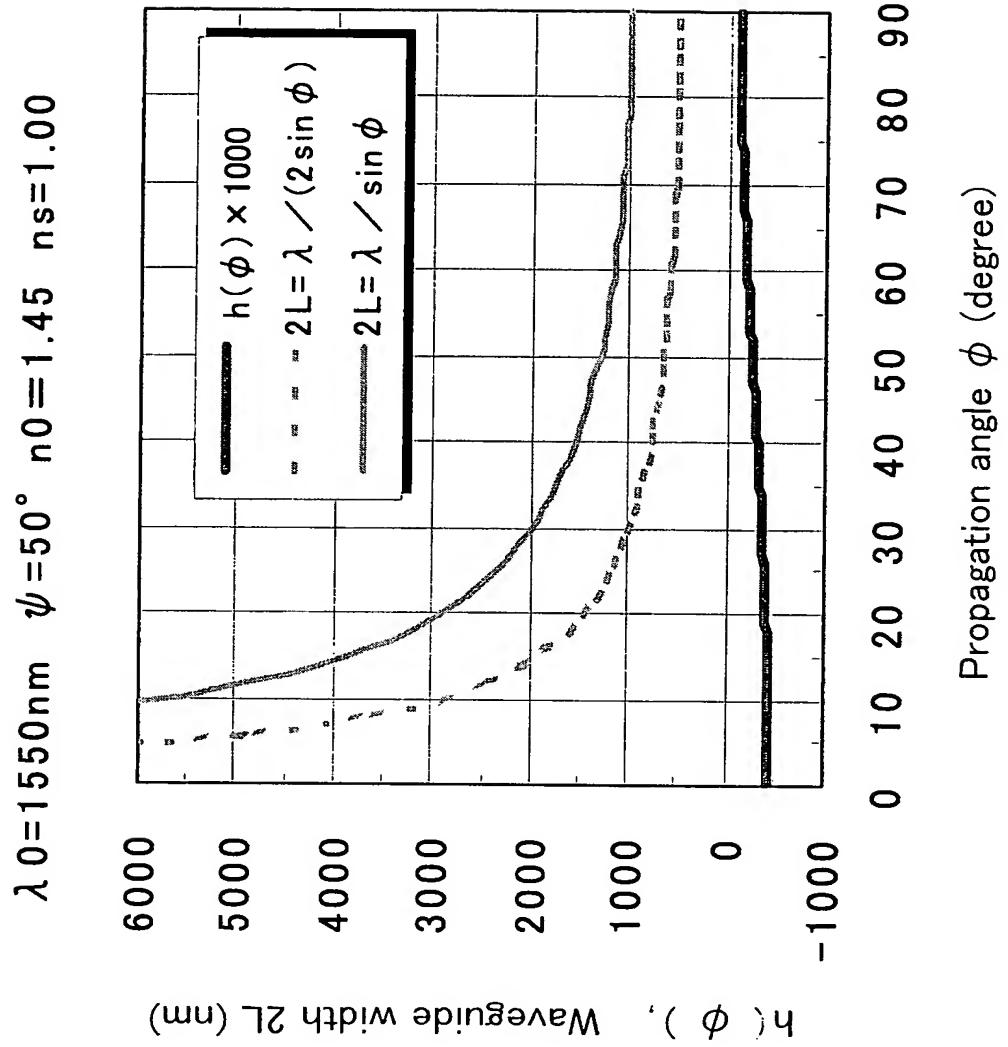


Fig. 45



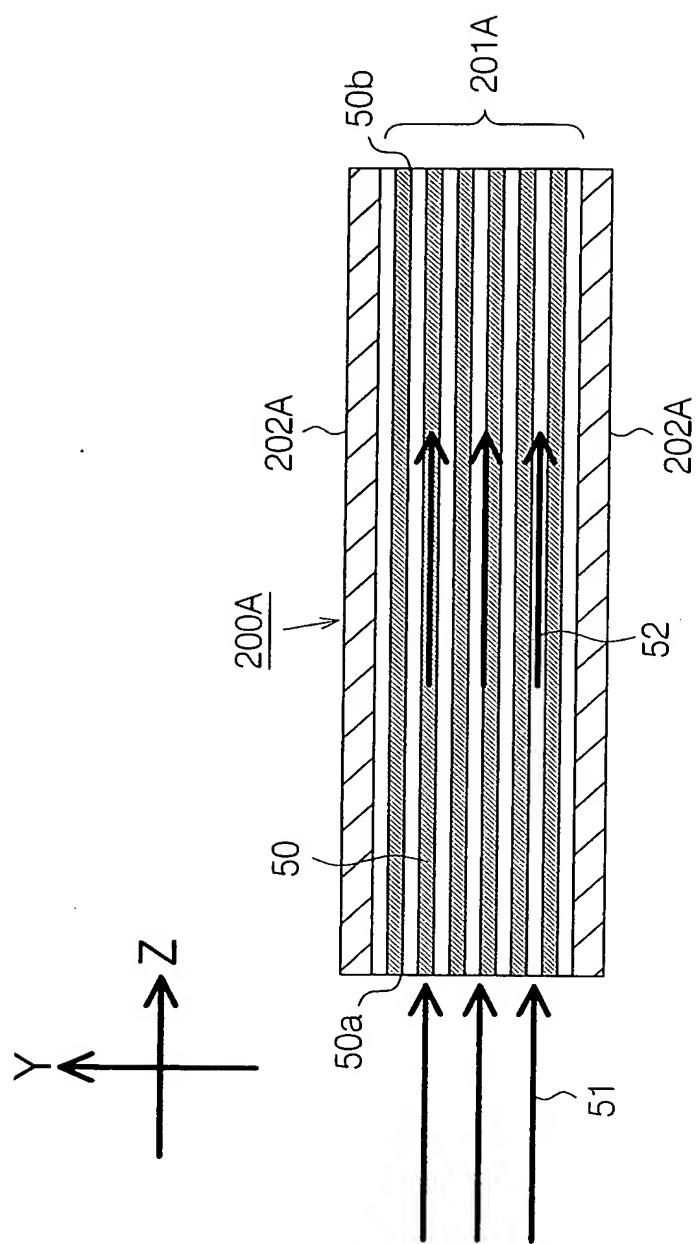


Fig.46

Fig.47

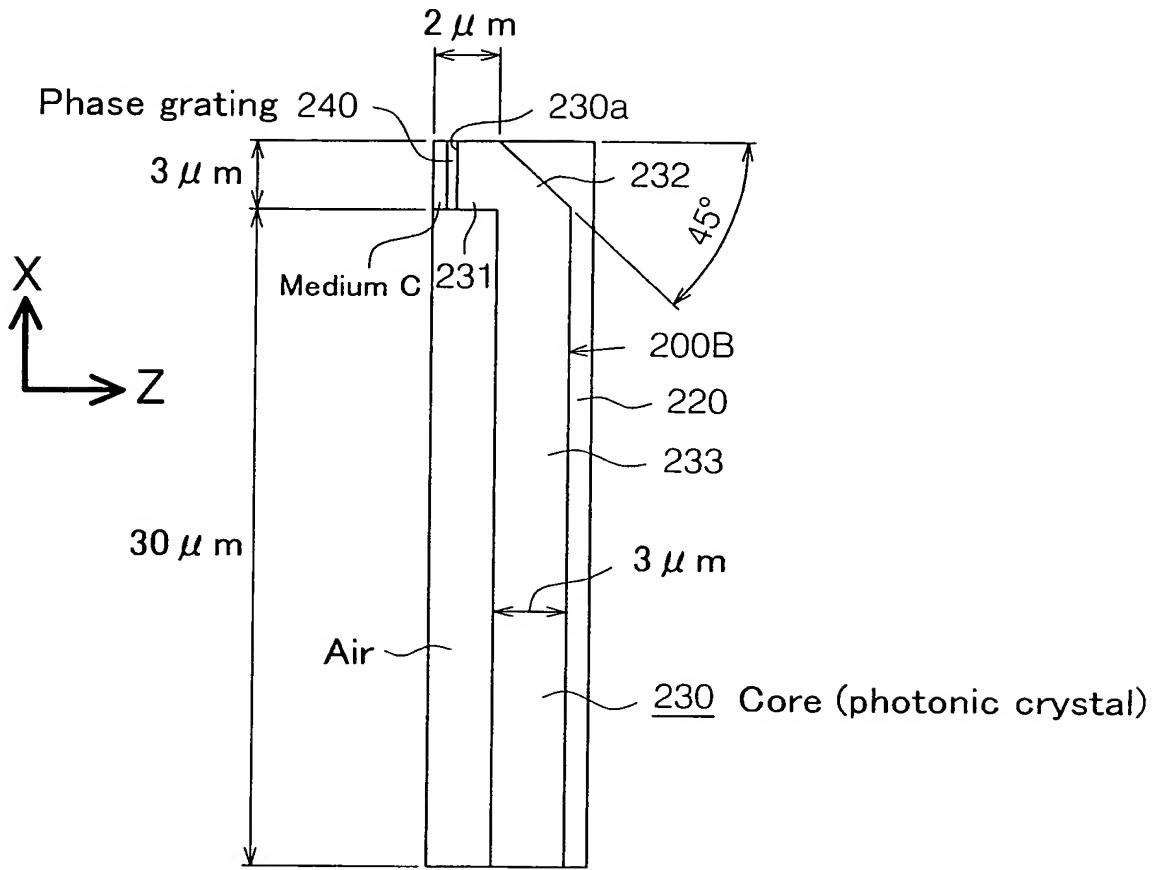


Fig.48

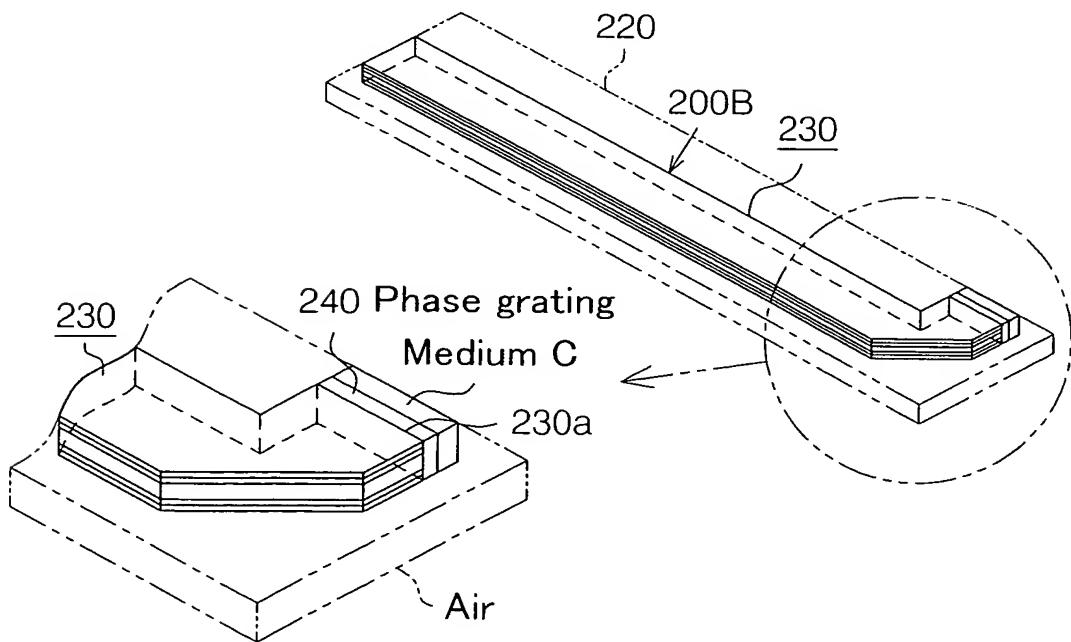


Fig.49

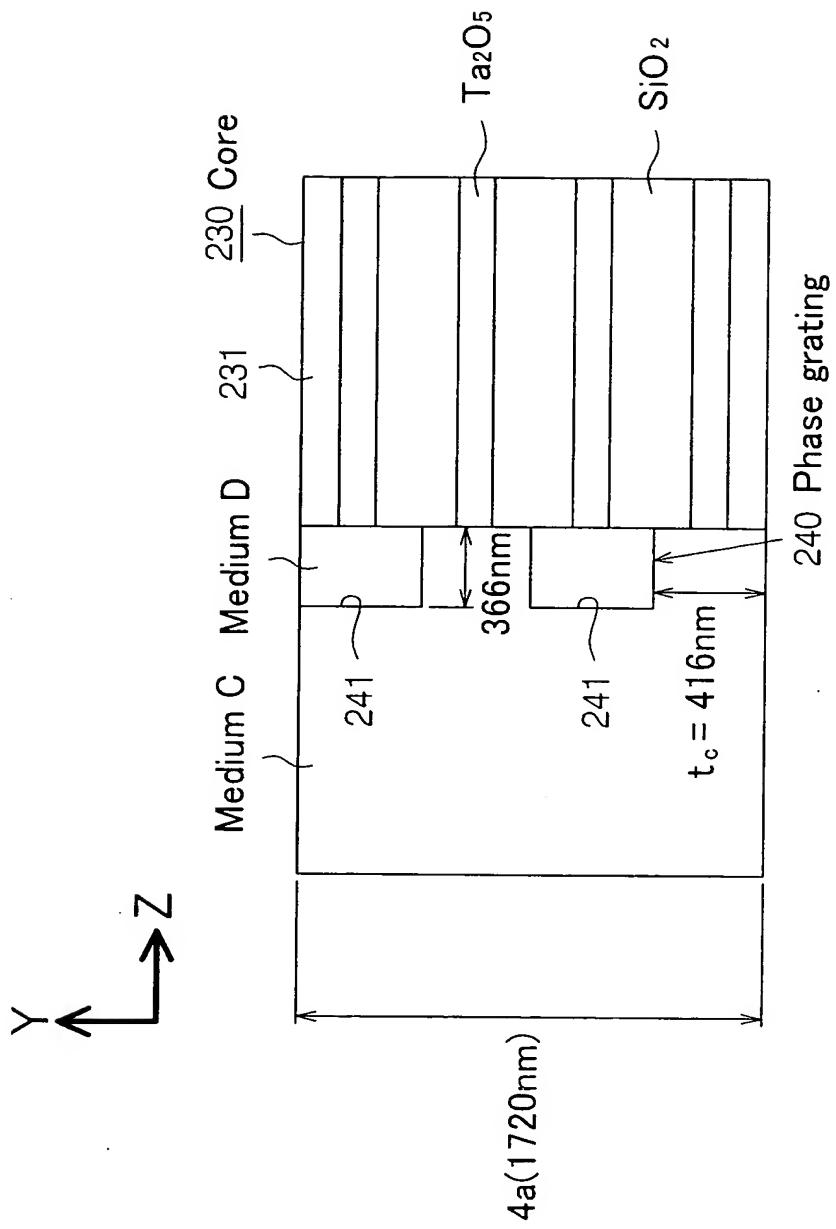


Fig. 50

240

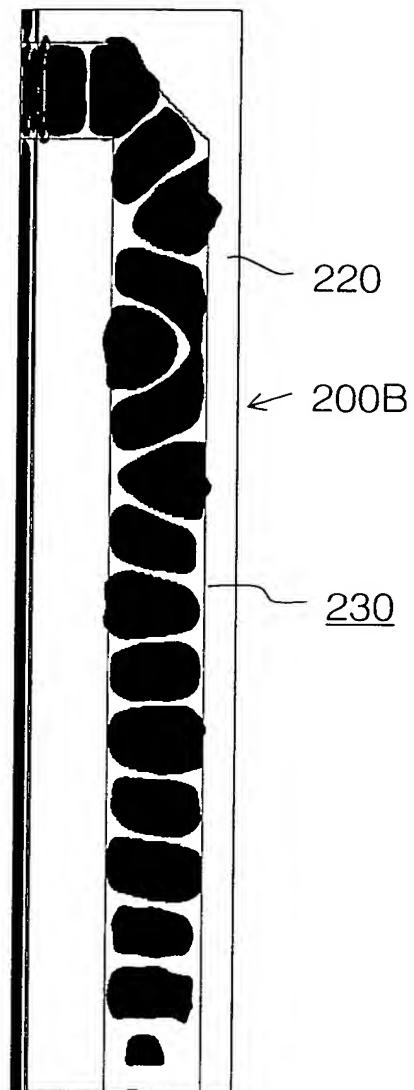
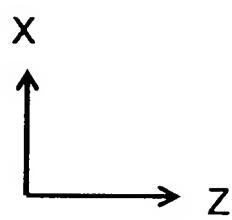


Fig.51

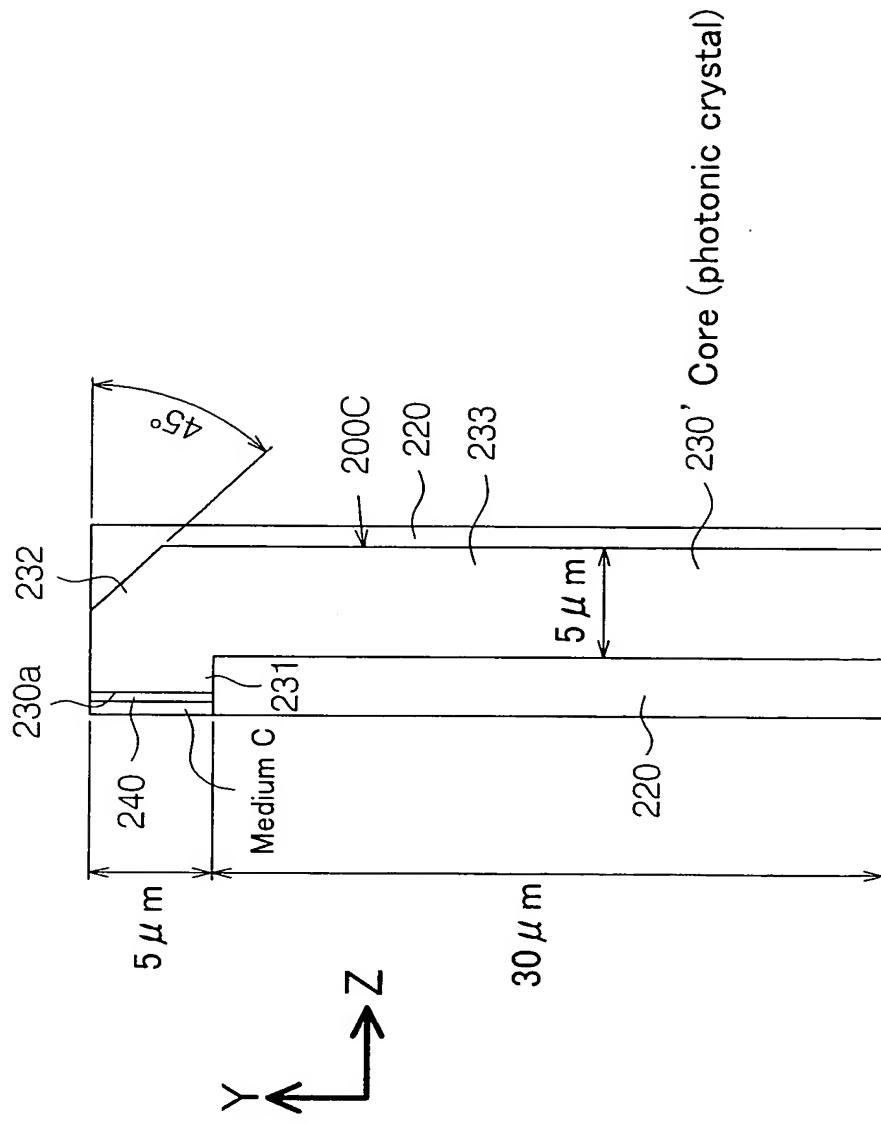


Fig. 52

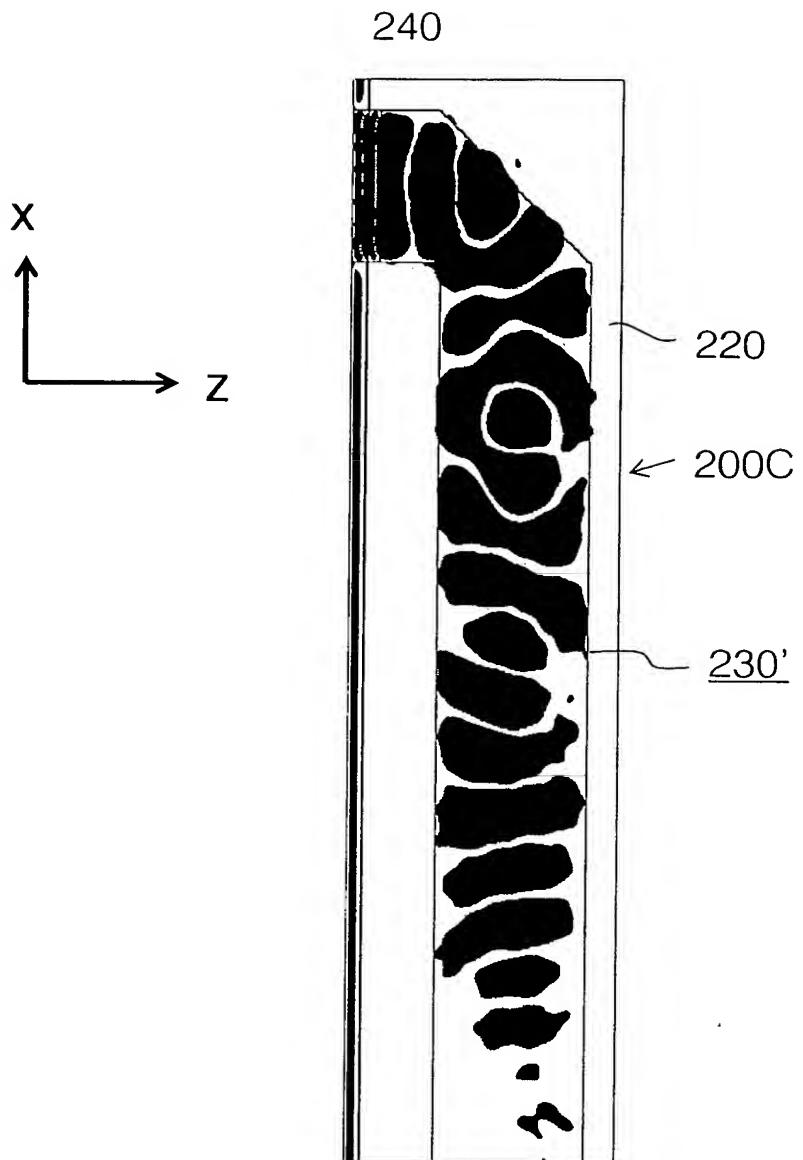


Fig.53

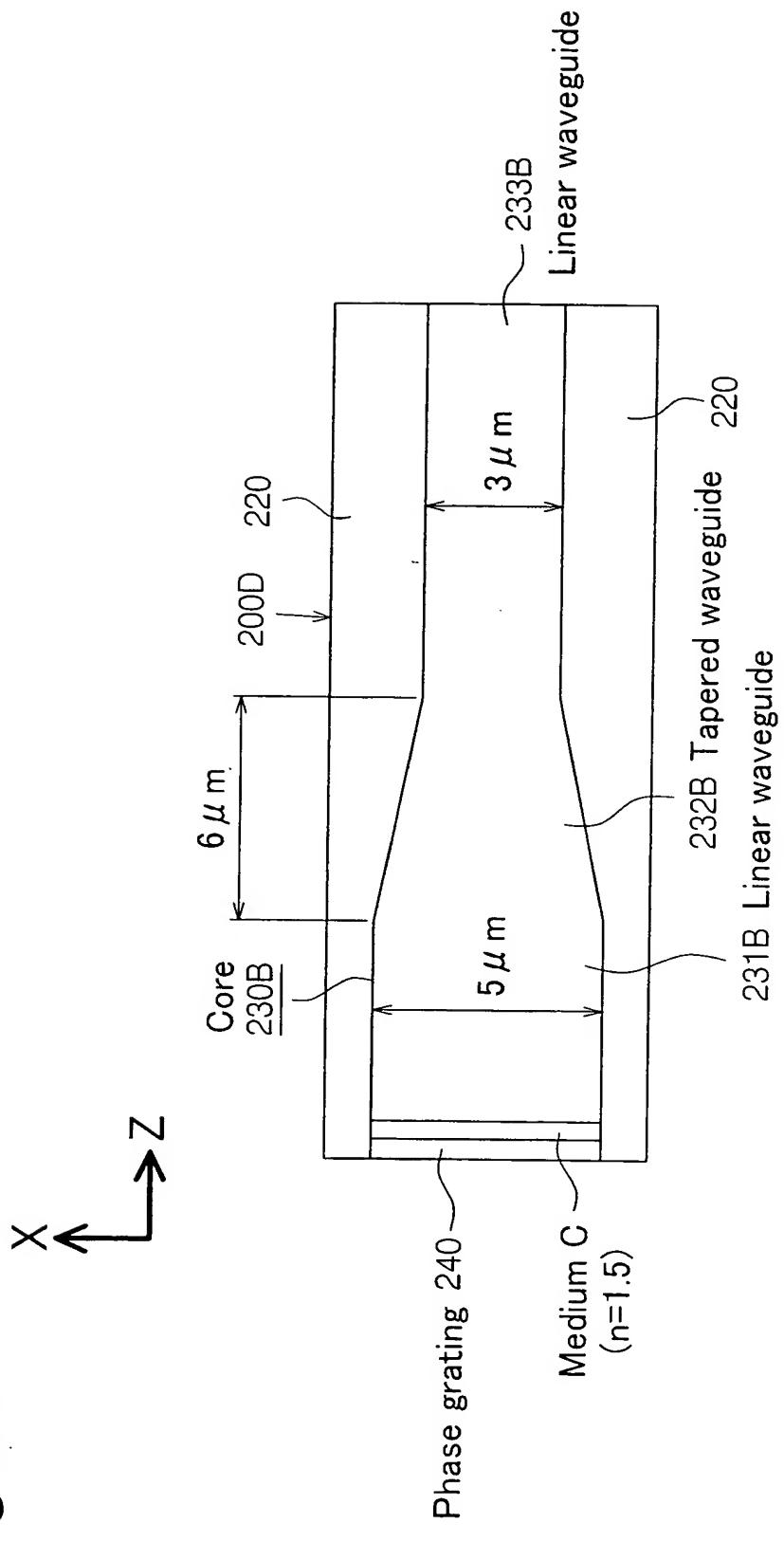


Fig. 54

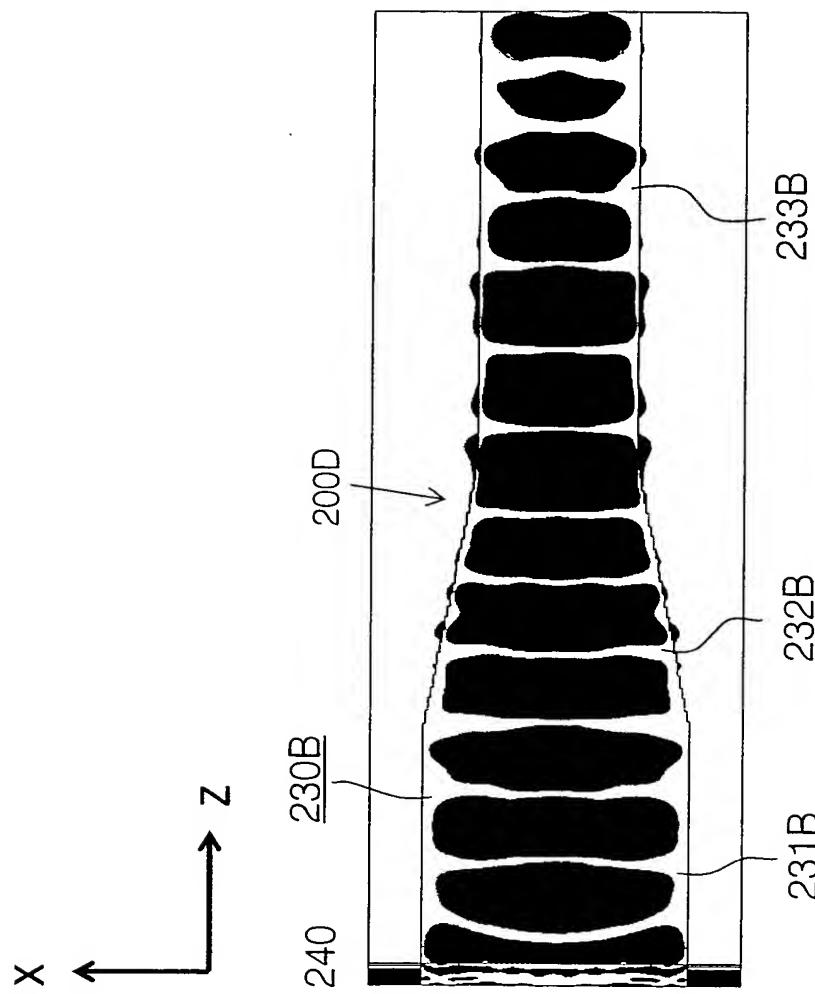


Fig.55

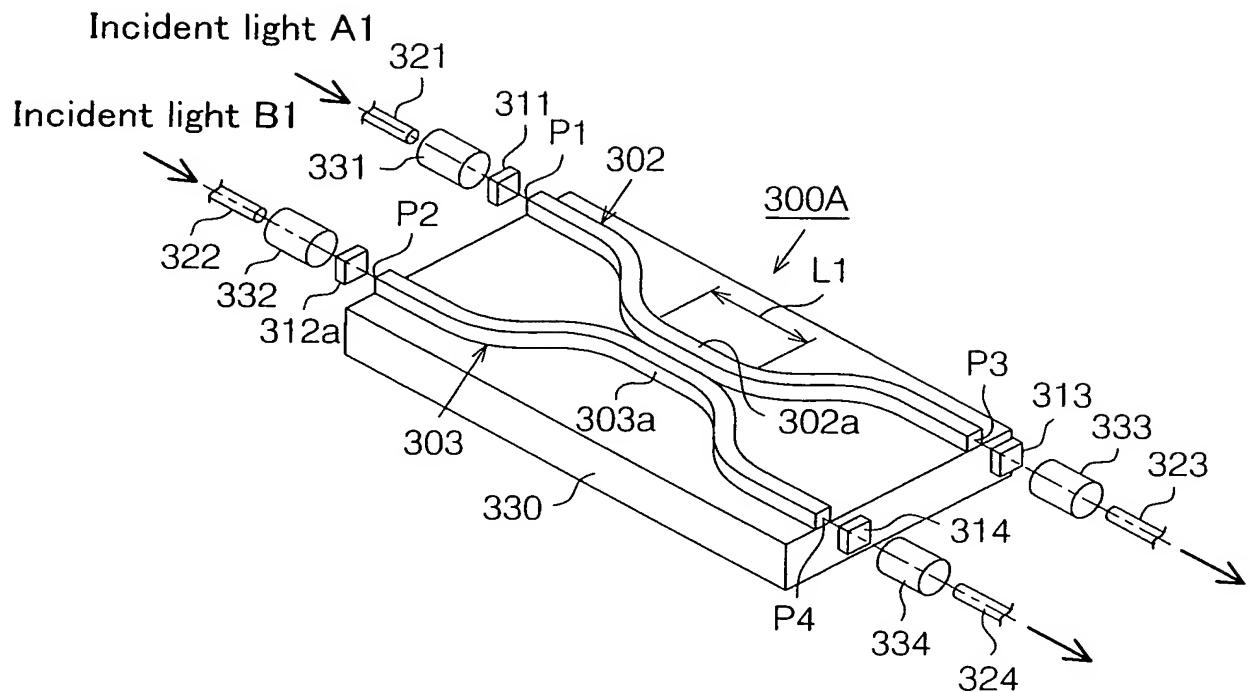


Fig.56

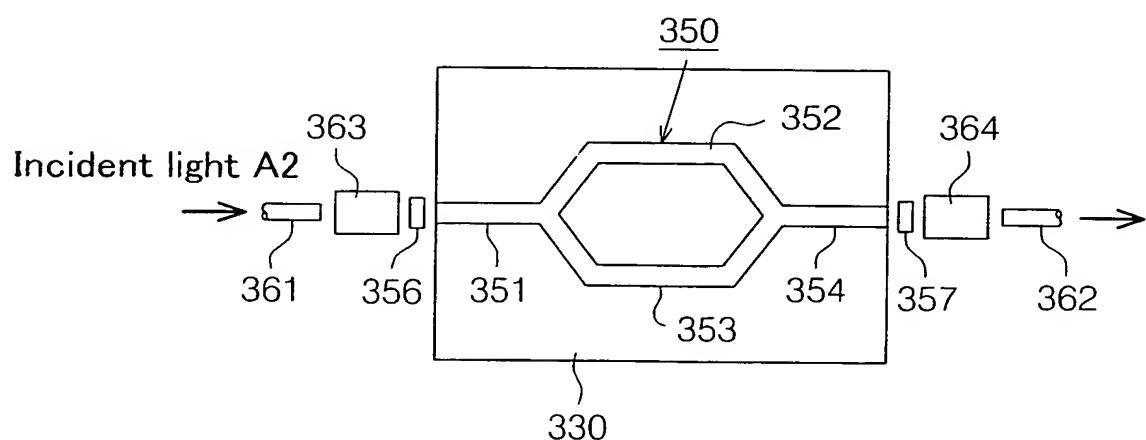


Fig.57

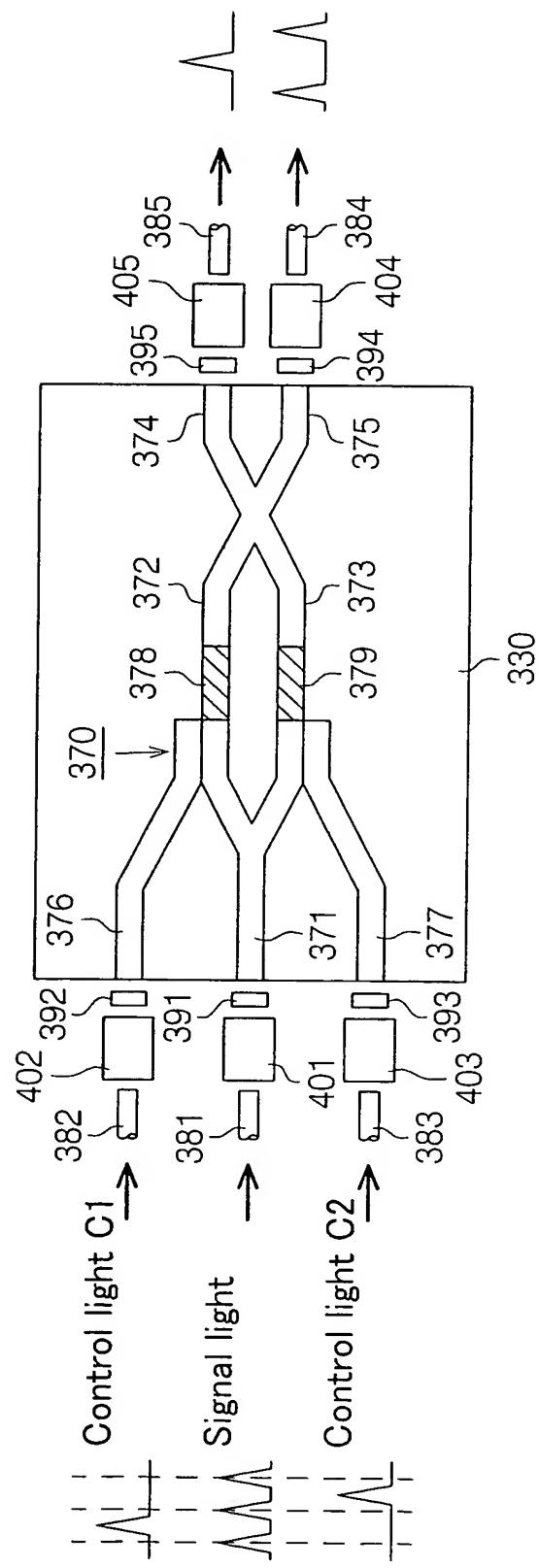
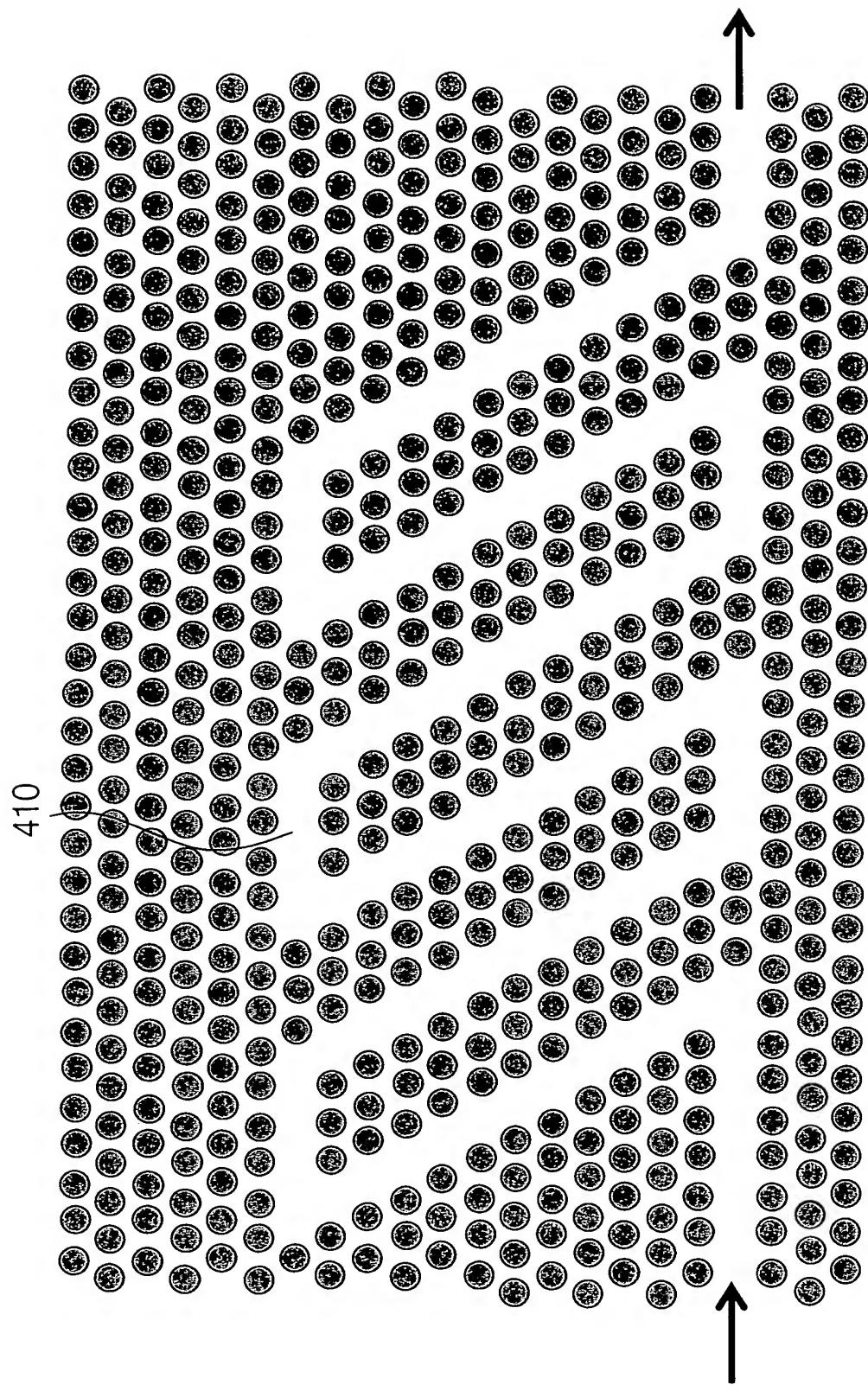


Fig. 58



Example of delay line by defect waveguide in two-dimensional photonic crystal

Fig. 59

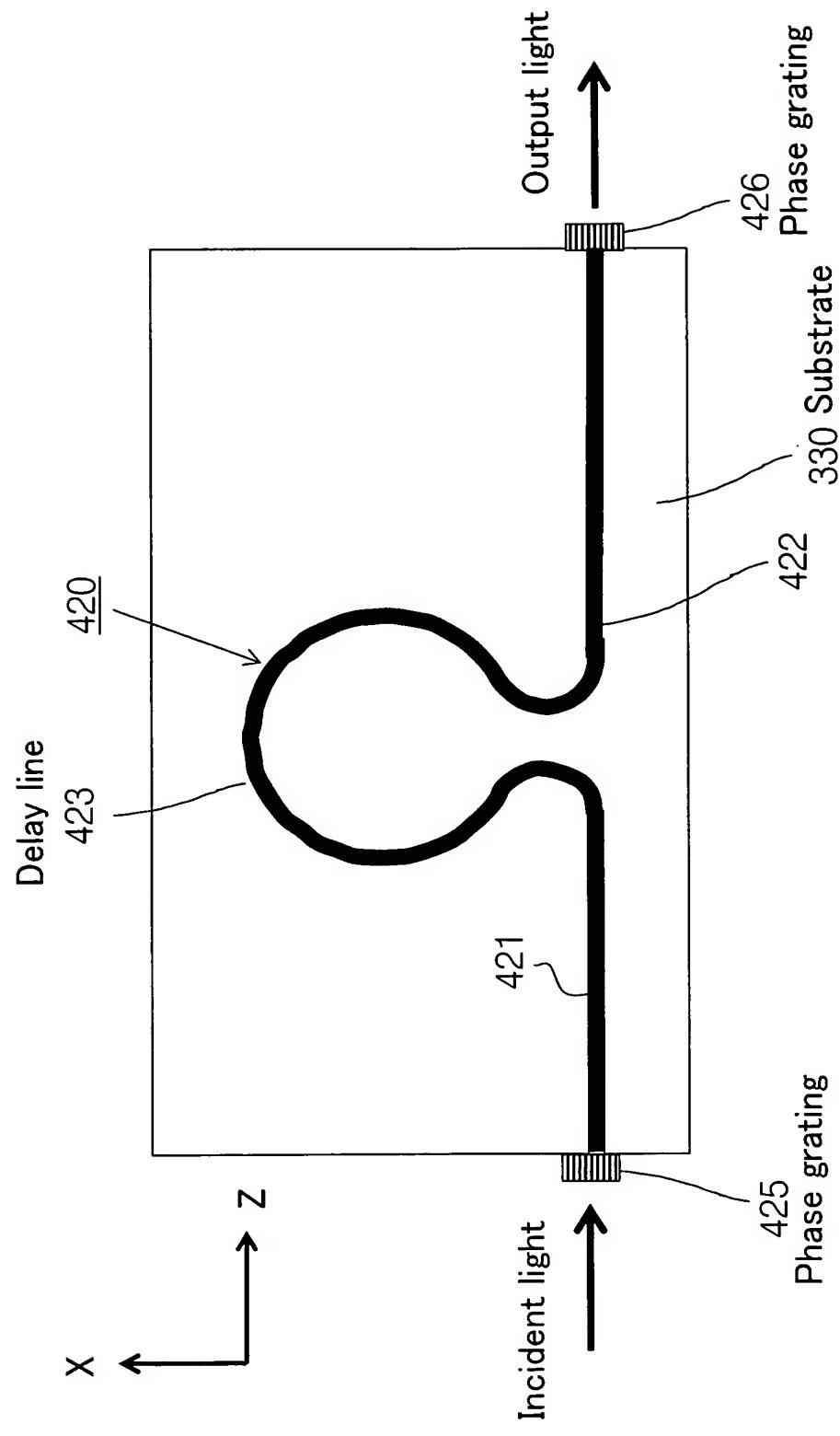


Fig. 60

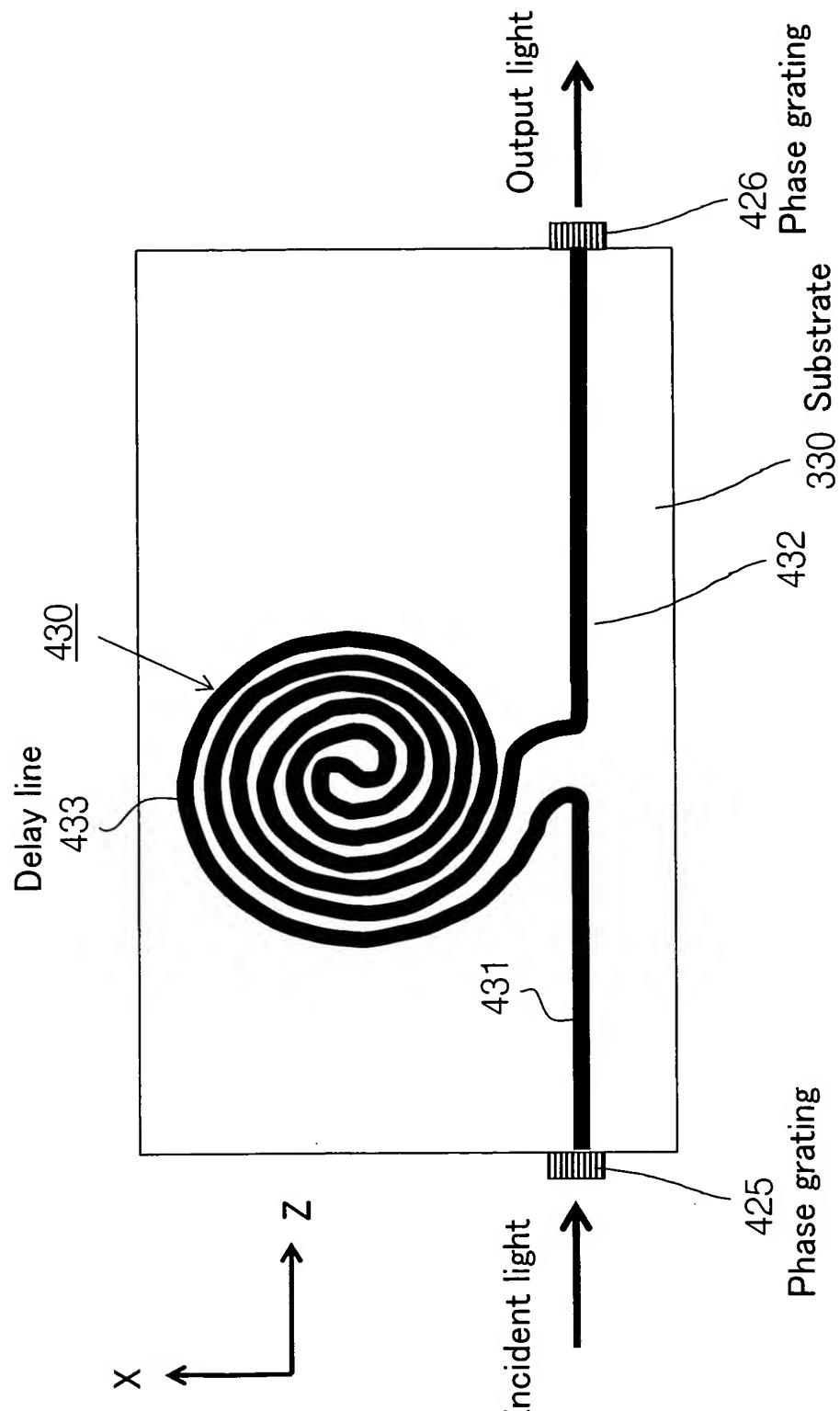


Fig. 61

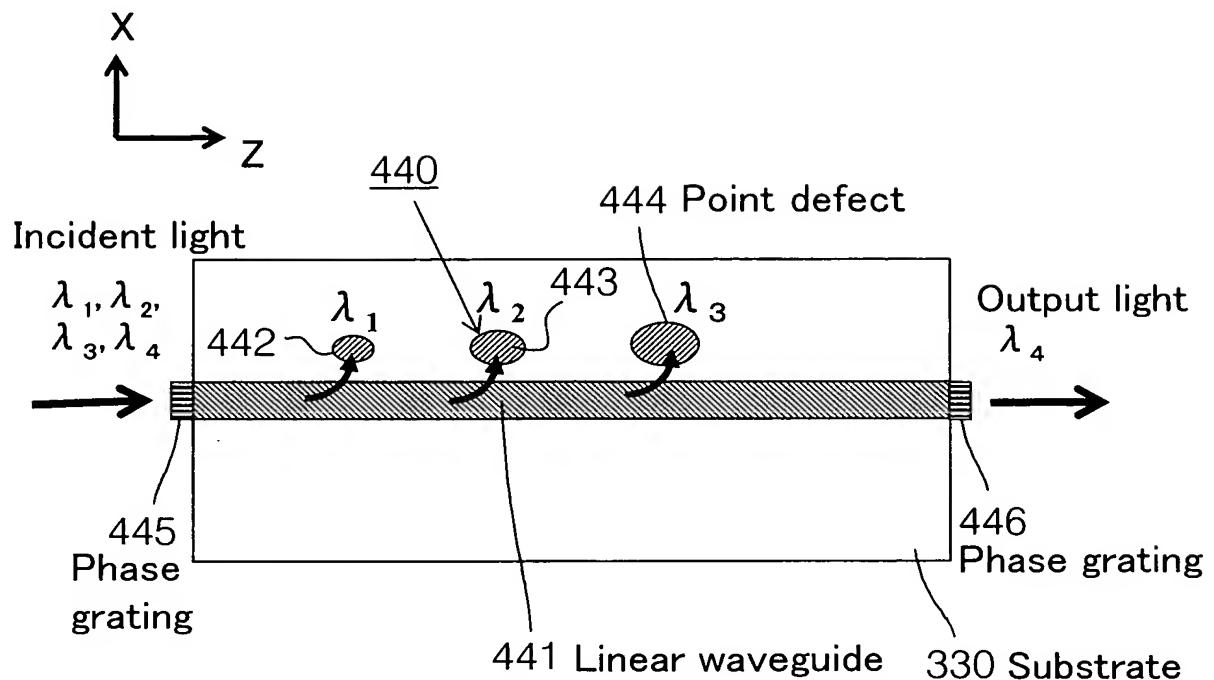


Fig. 62

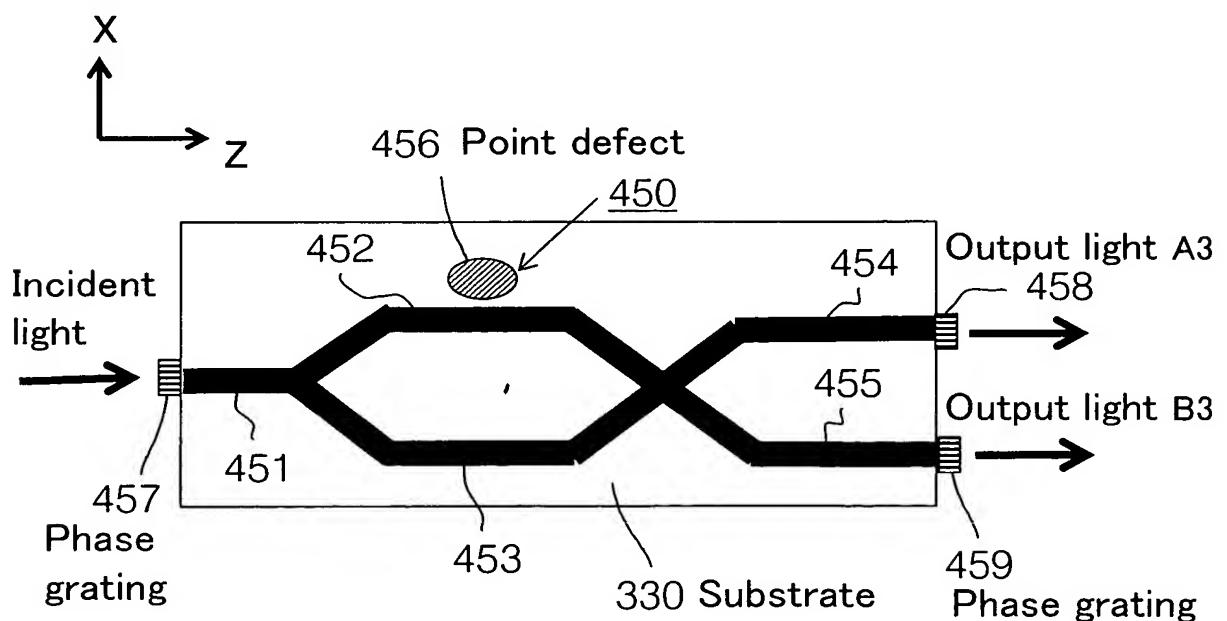


Fig. 63

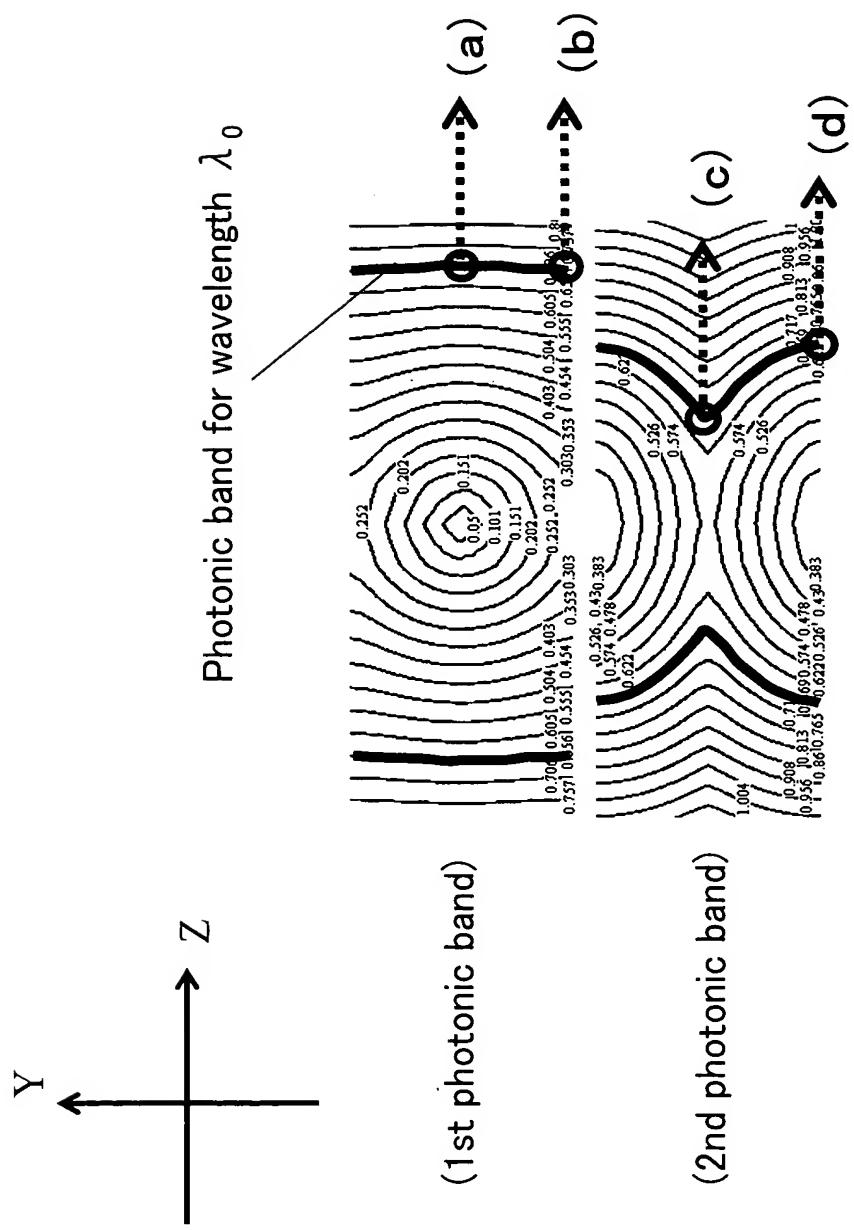
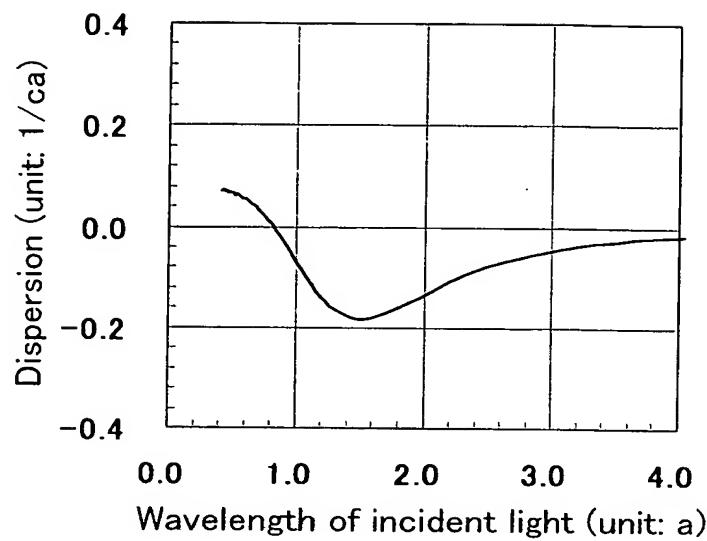
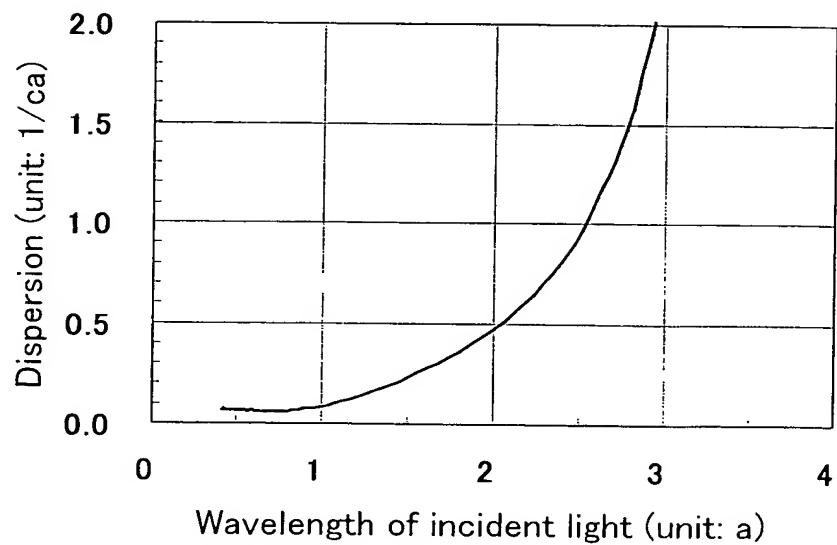


Fig. 64



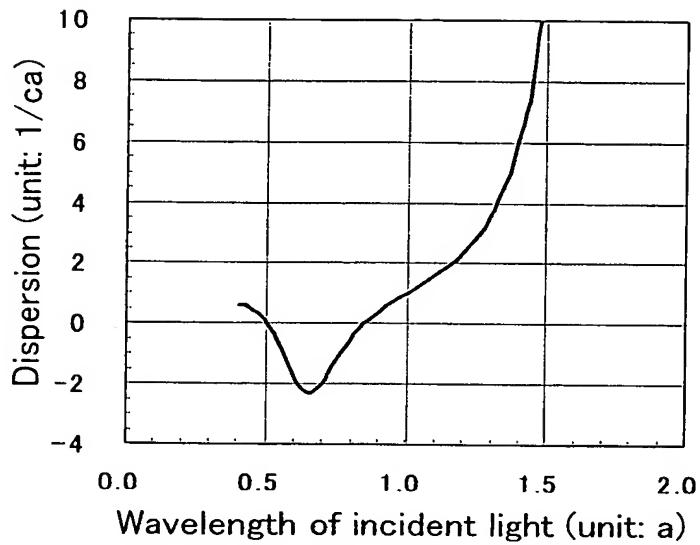
(a)

Fig. 65



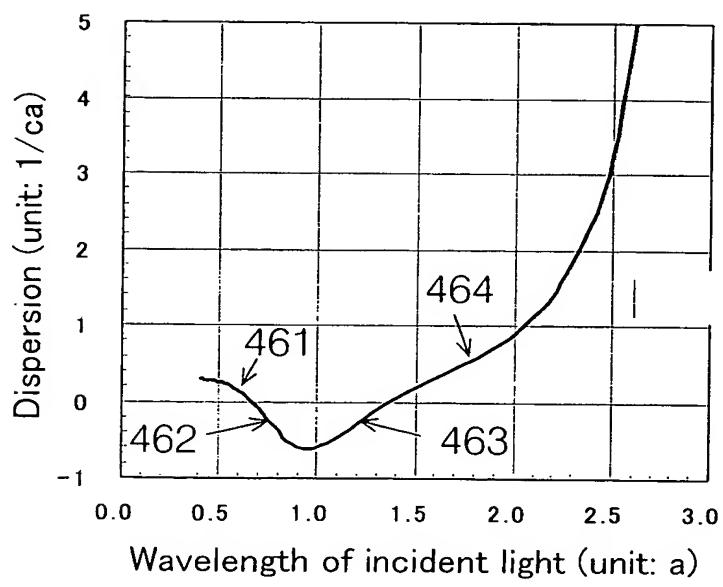
(b)

Fig. 66



(c)

Fig. 67



(d)

Fig.68

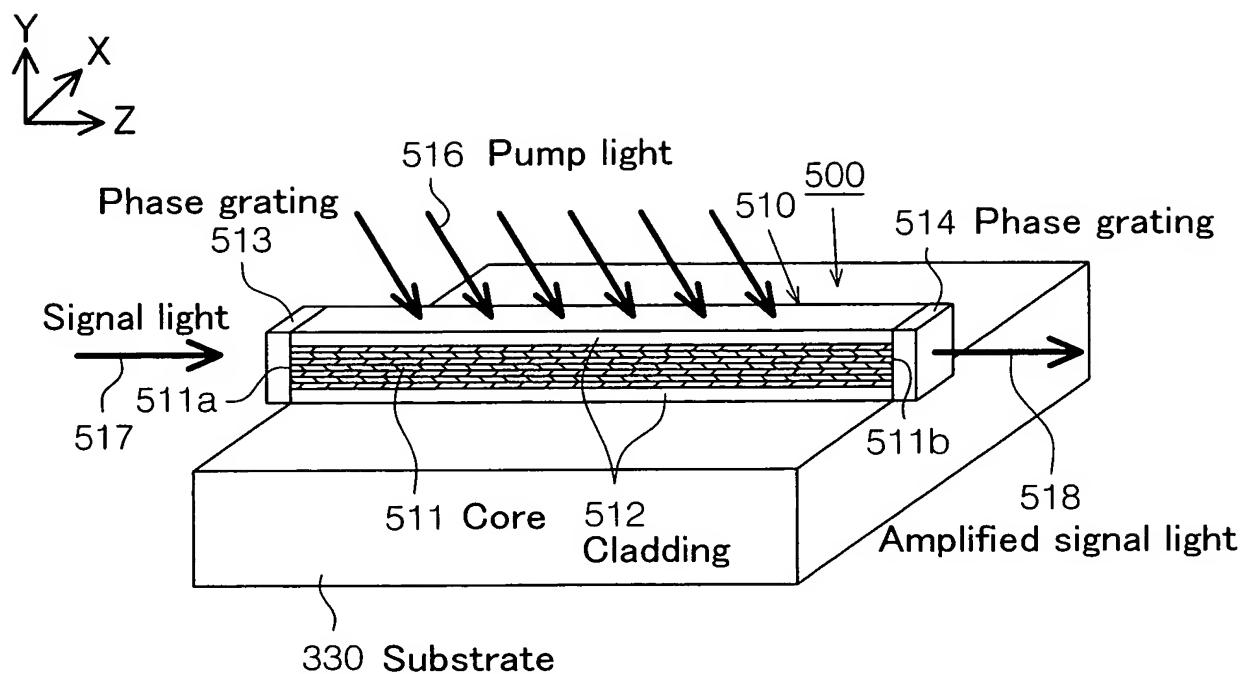


Fig.69

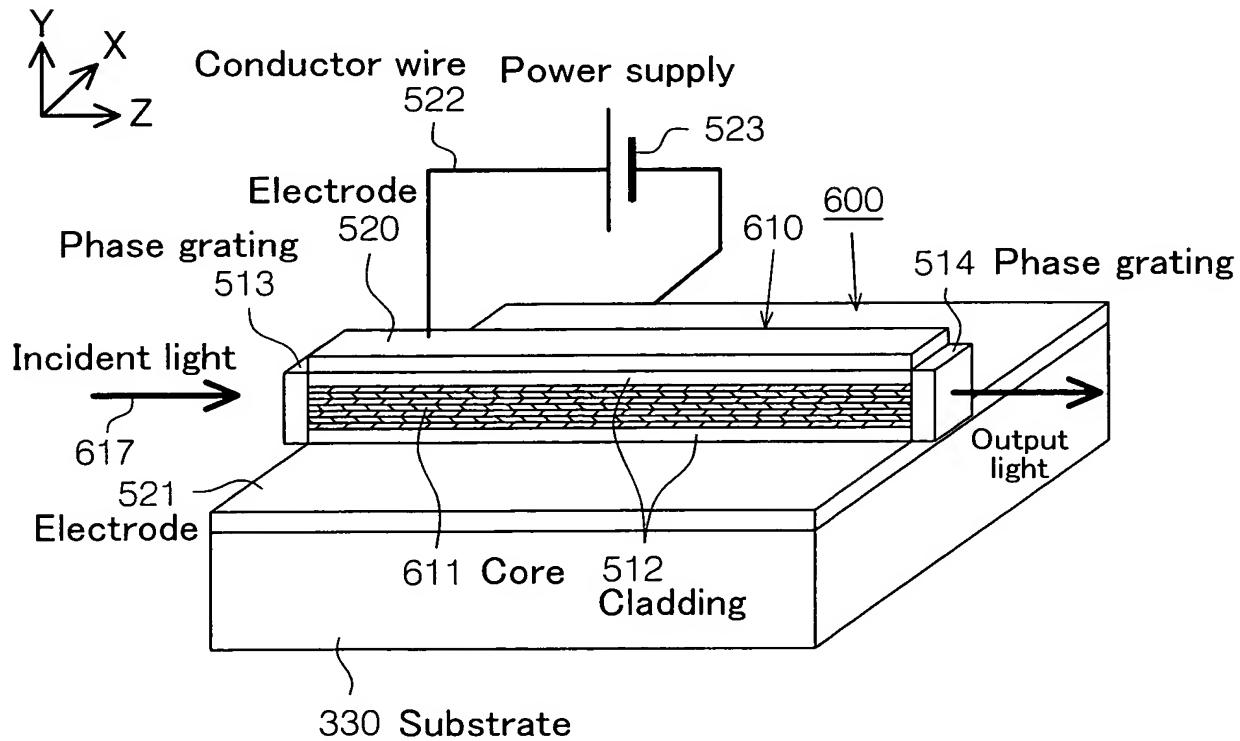


Fig.70

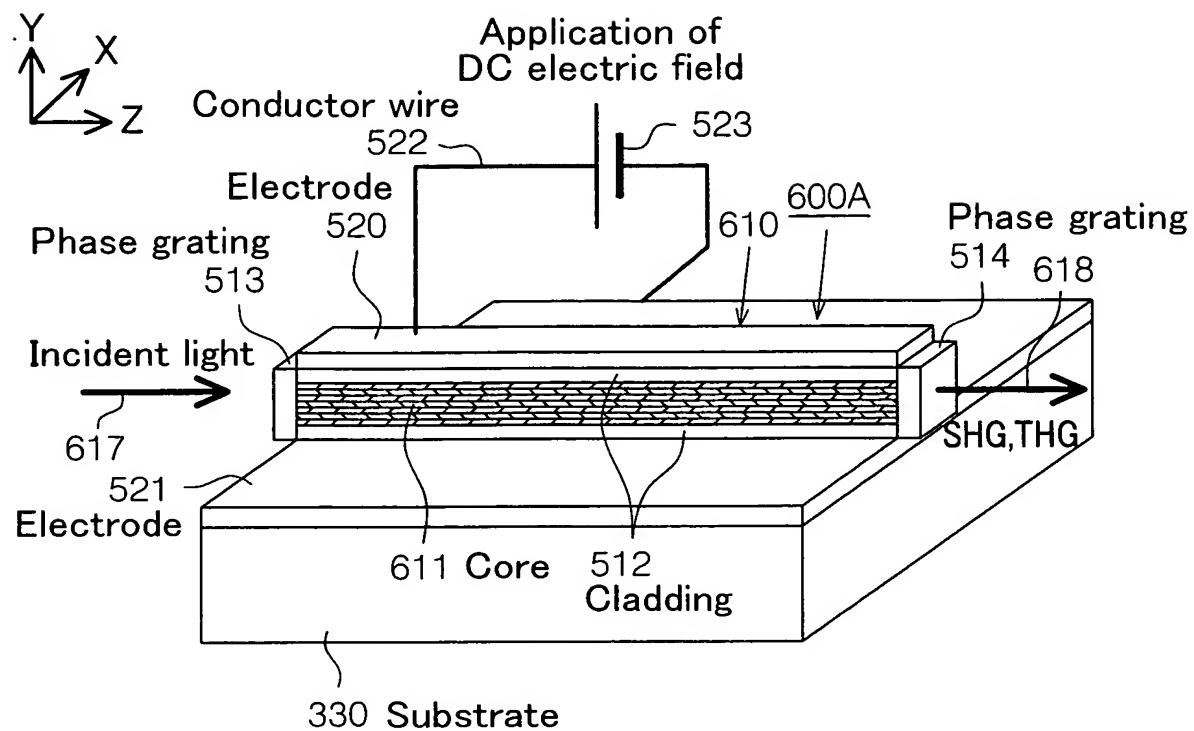


Fig.71

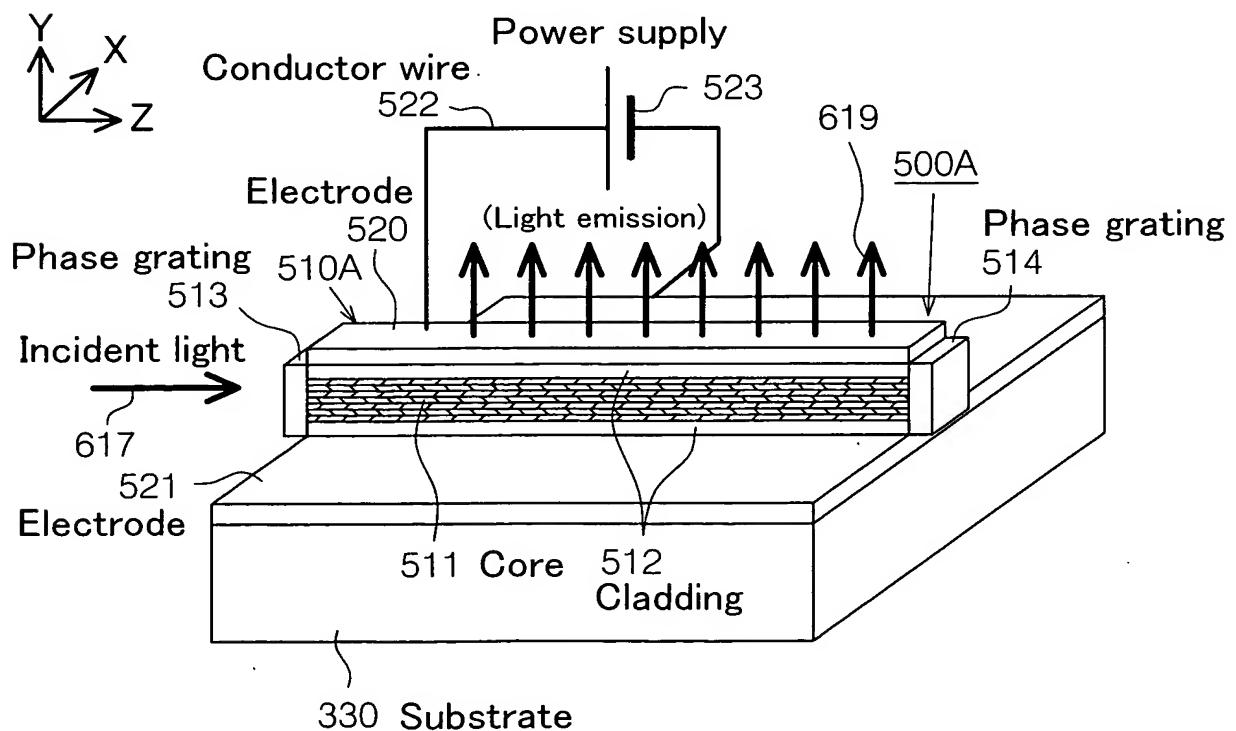


Fig.72

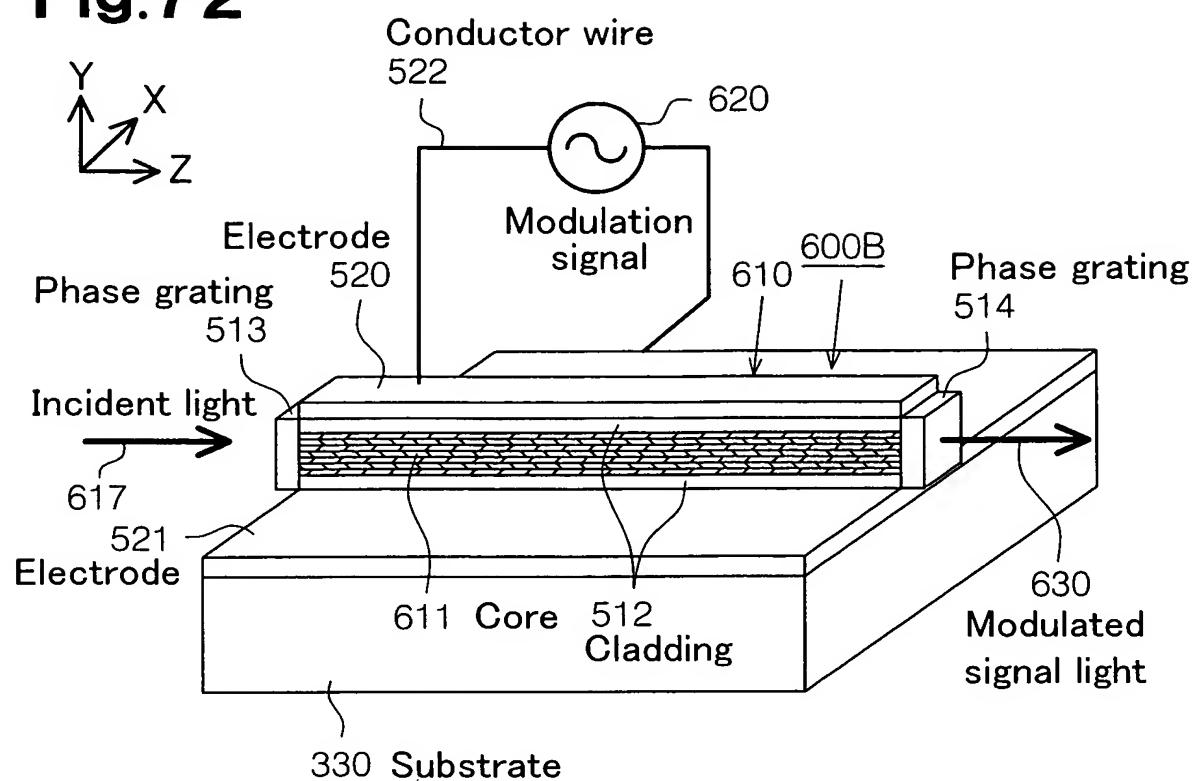


Fig. 73(a)

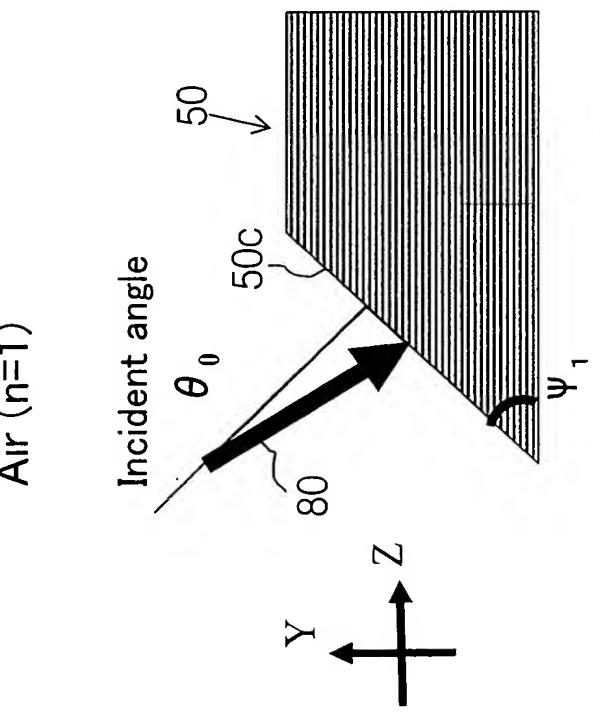
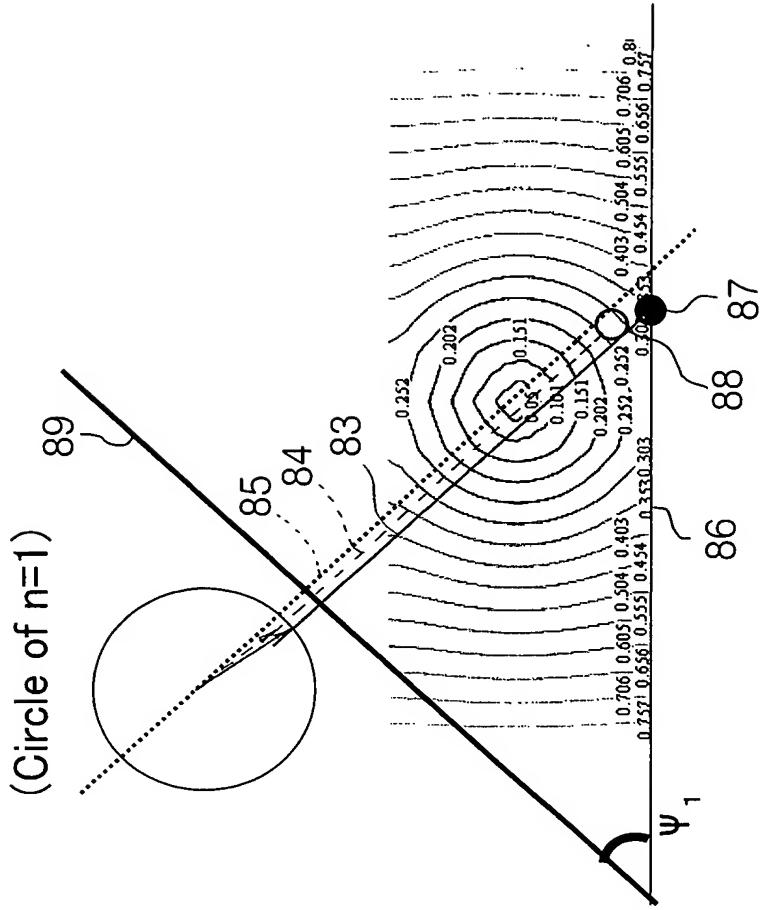


Fig. 73(b)



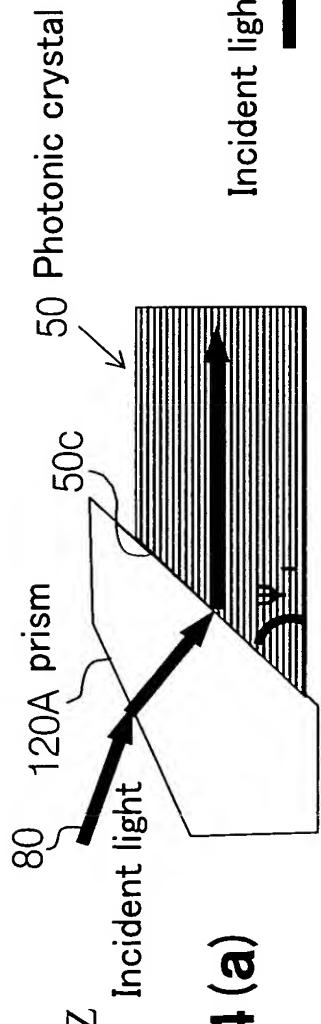
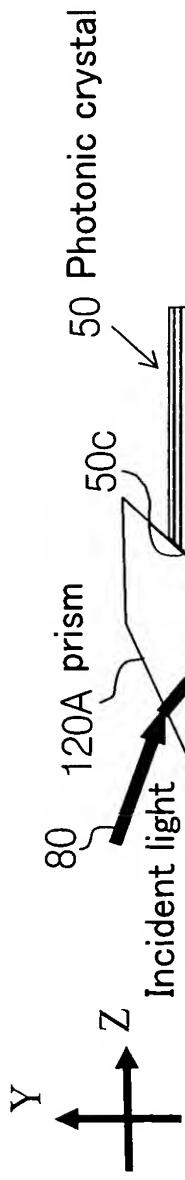


Fig. 74 (a)

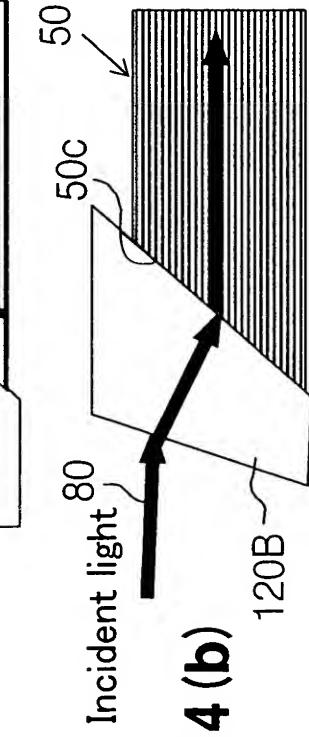


Fig. 74 (b)



Fig. 74 (e)

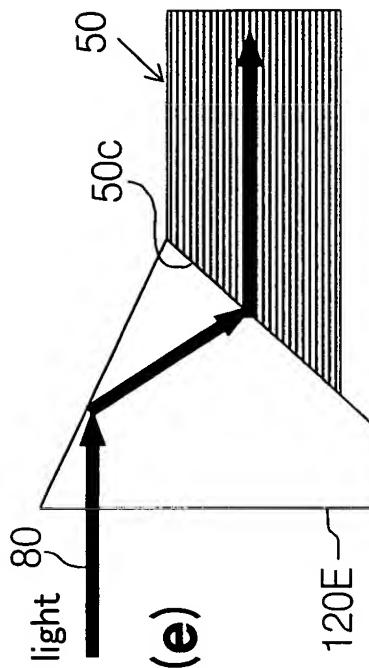


Fig. 74 (f)

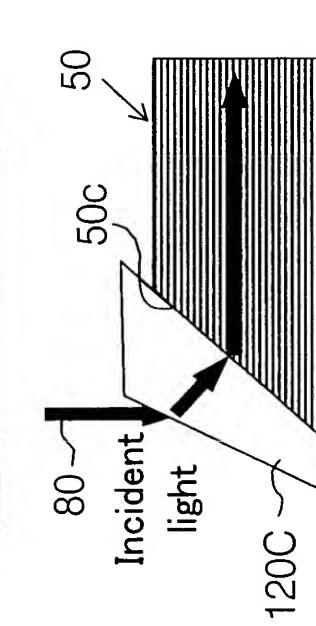


Fig. 74 (c)

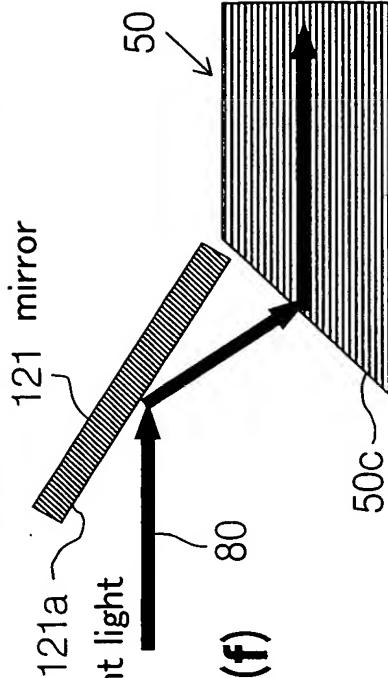


Fig. 74 (d)

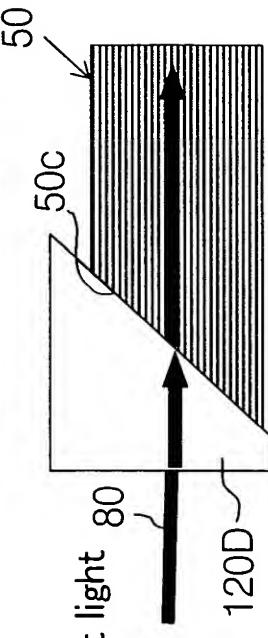


Fig. 74 (d)

Fig. 75(b)

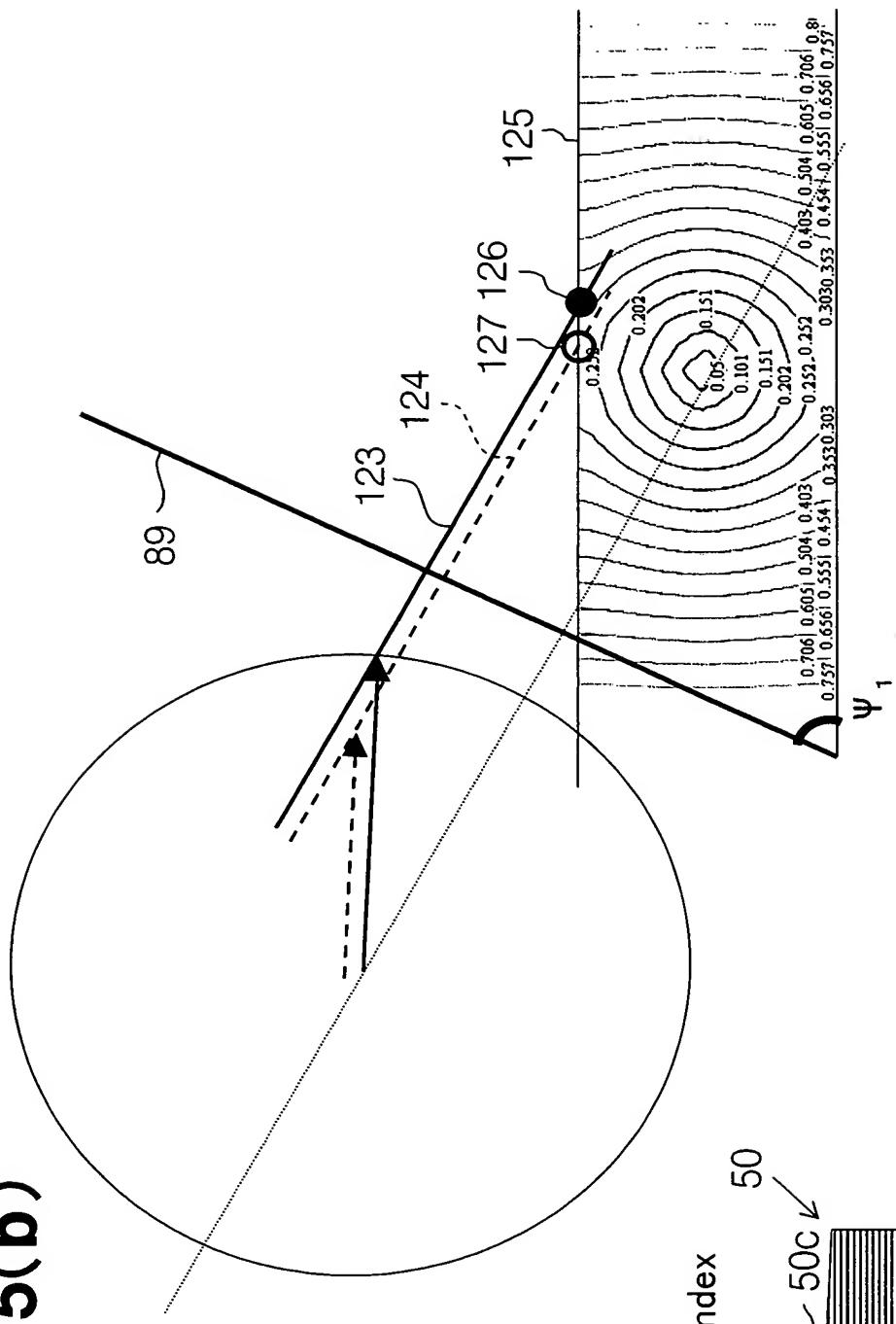
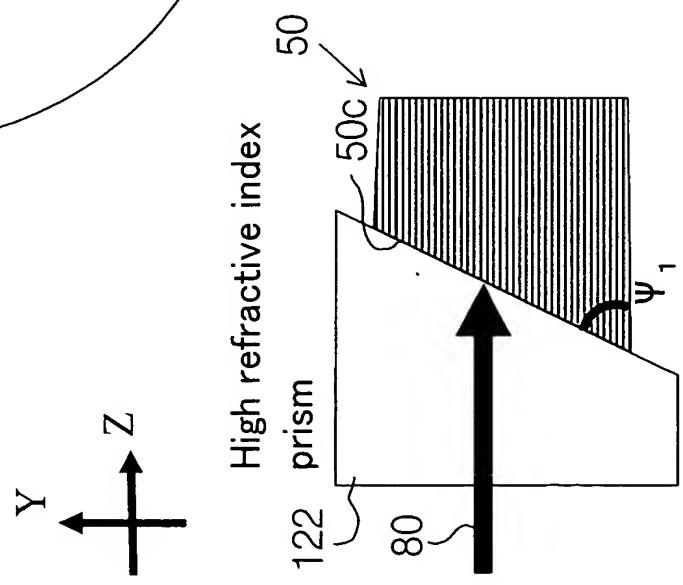


Fig. 75(a)



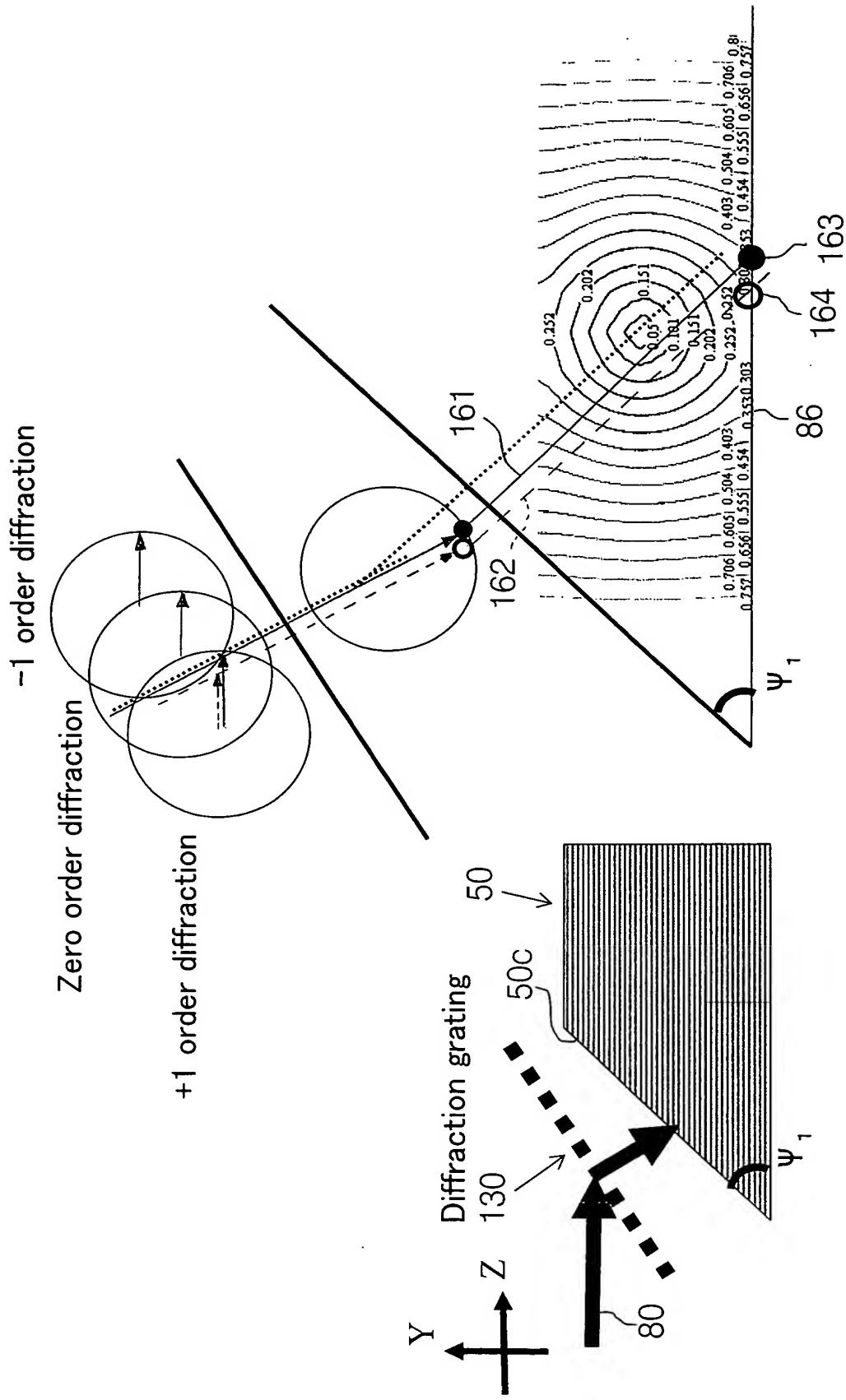


Fig. 76(a)

Fig. 76(b)

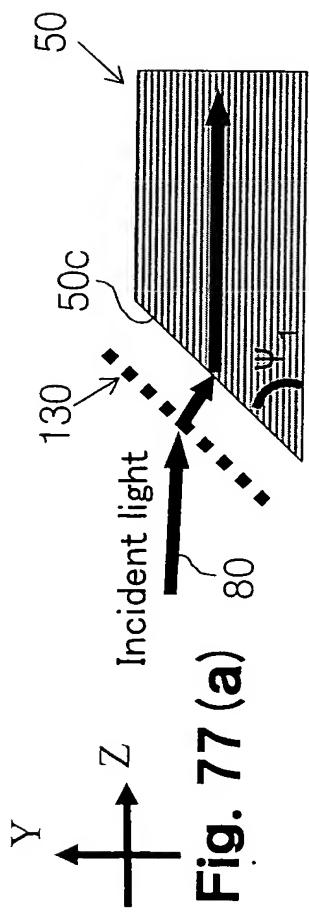


Fig. 77 (a)

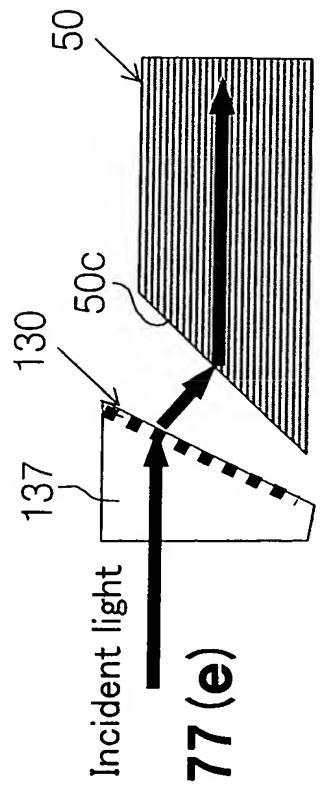


Fig. 77 (e)

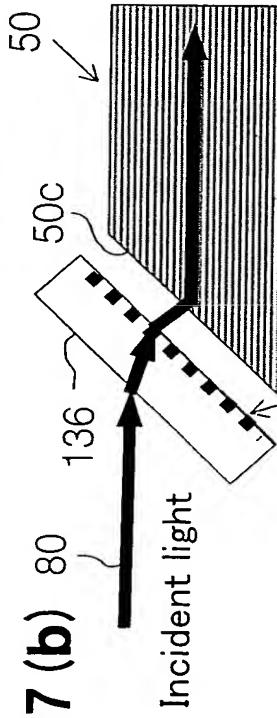


Fig. 77 (b)

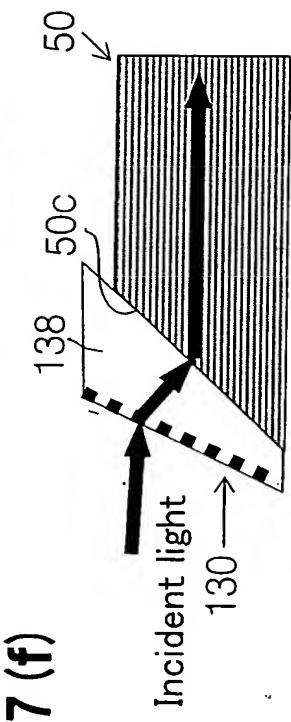


Fig. 77 (f)

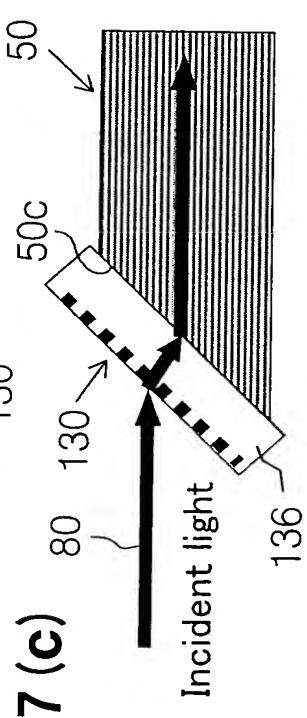


Fig. 77 (c)

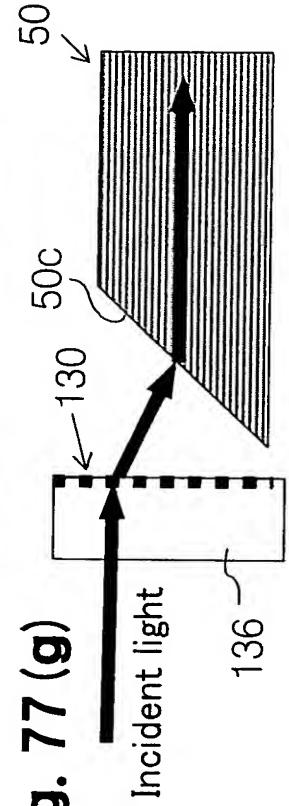


Fig. 77 (g)

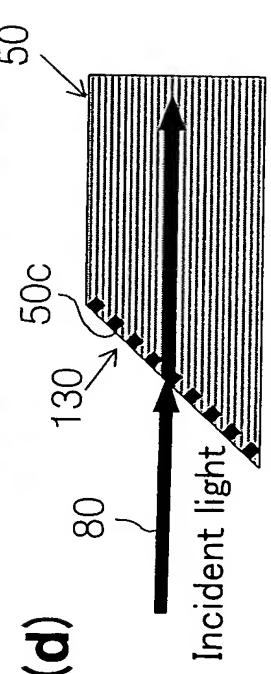


Fig. 77 (d)

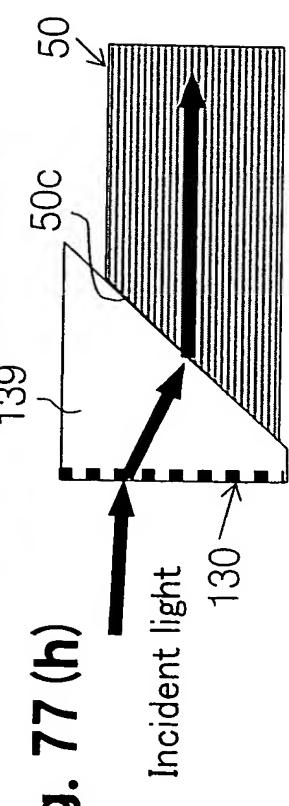


Fig. 77 (h)

Fig. 78(b)

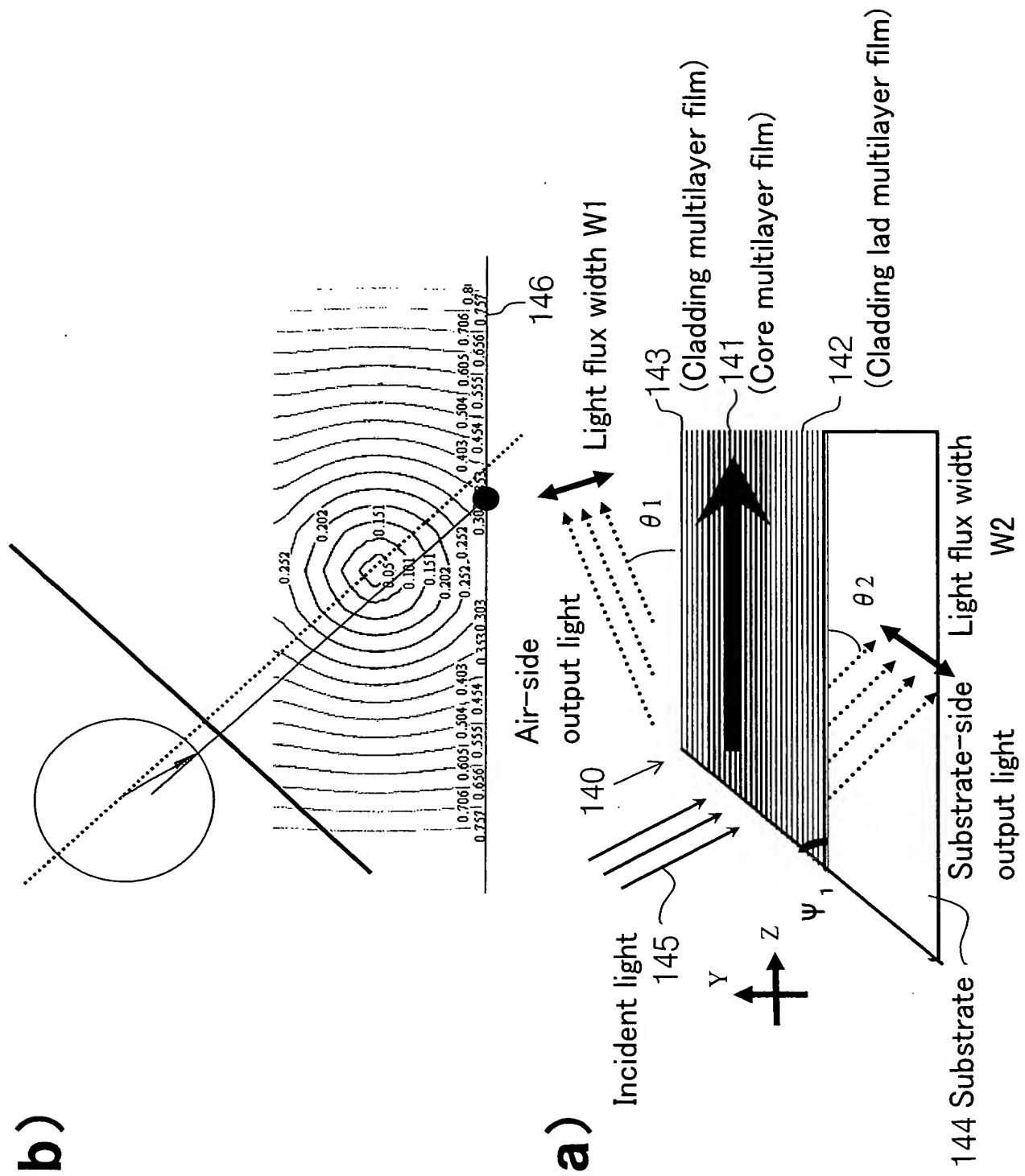


Fig. 78(a)

Fig. 79(a)

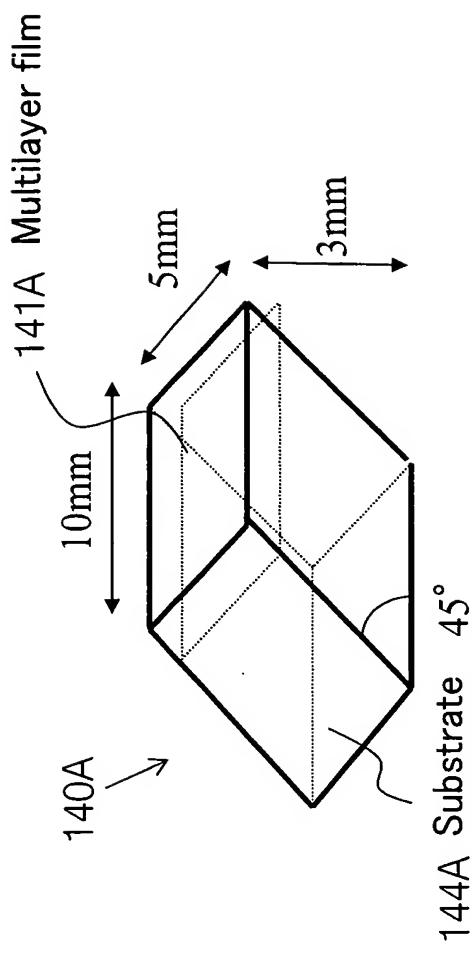


Fig. 79(b)

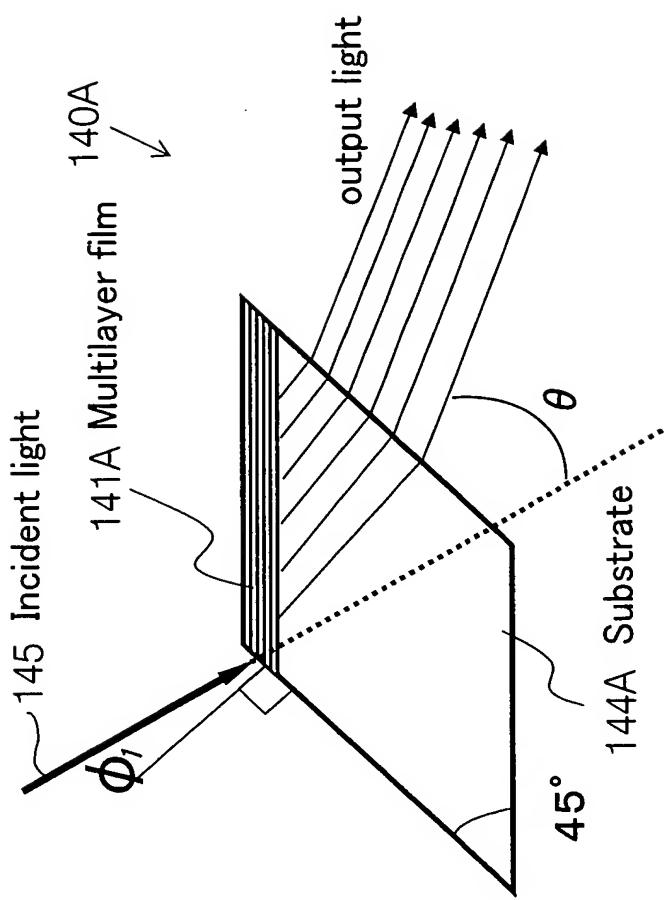


Fig. 80

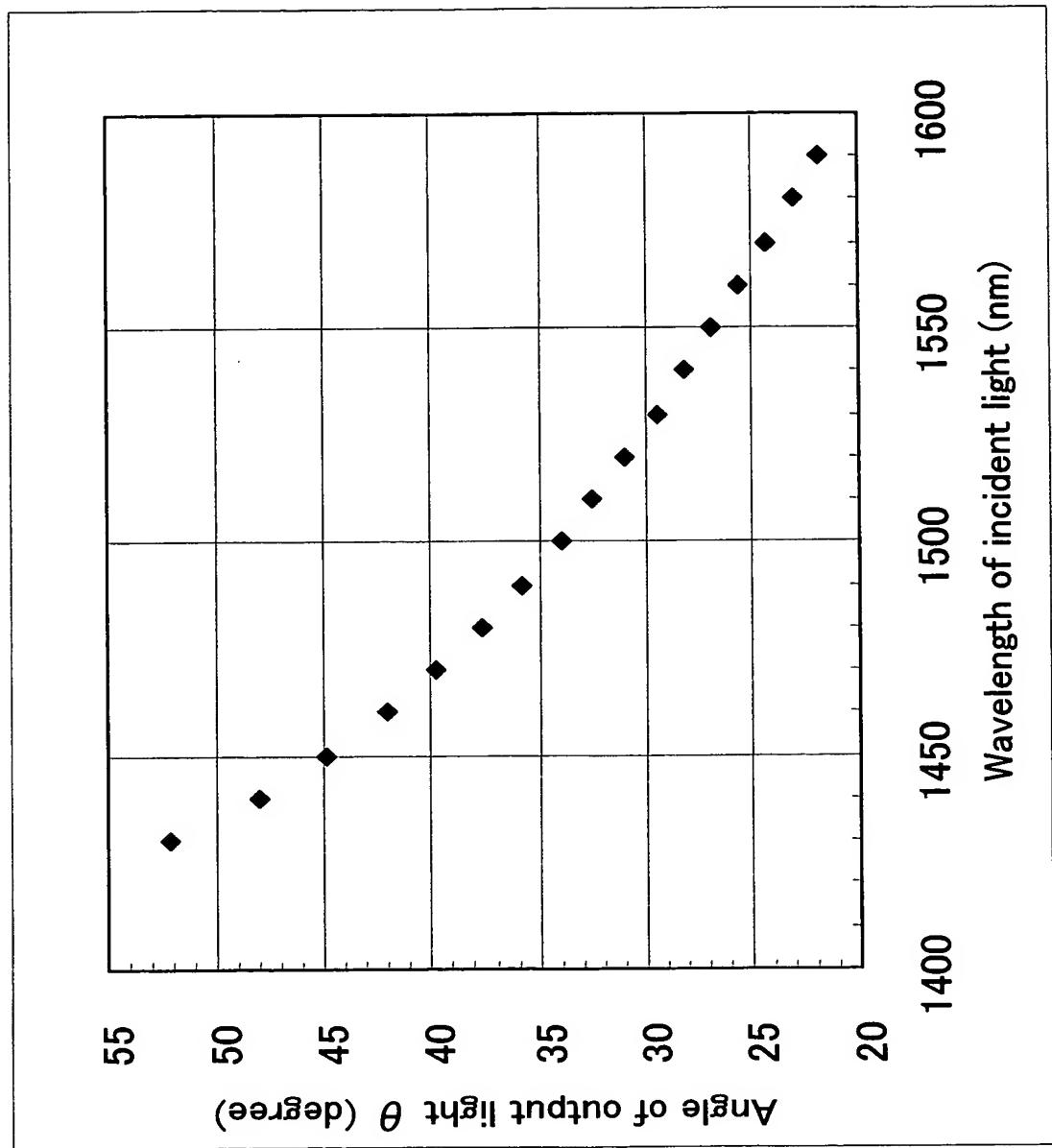


Fig. 81(a)

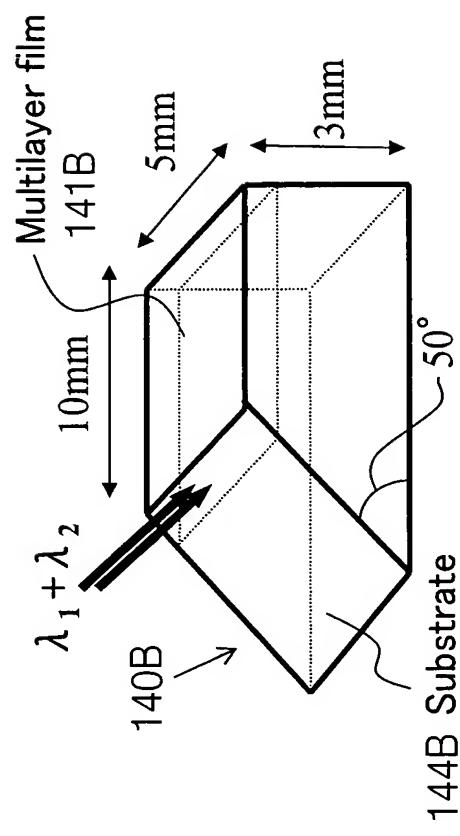


Fig. 81(b)

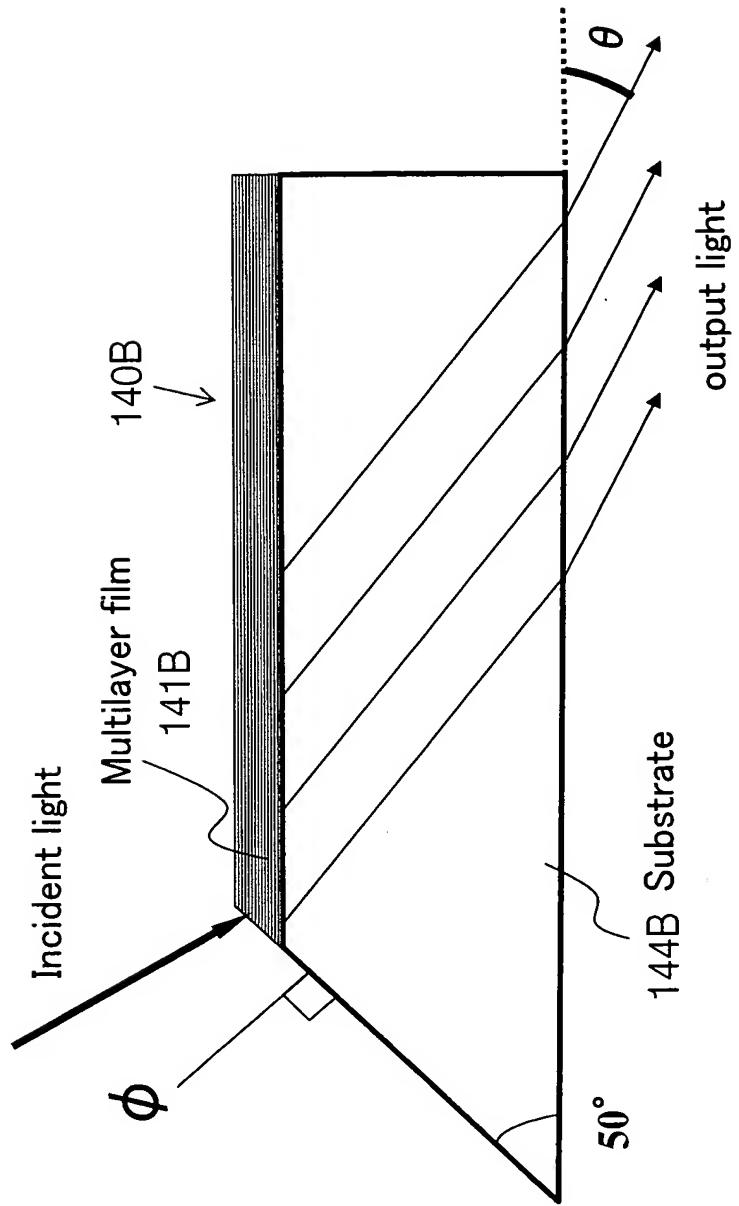


Fig. 82

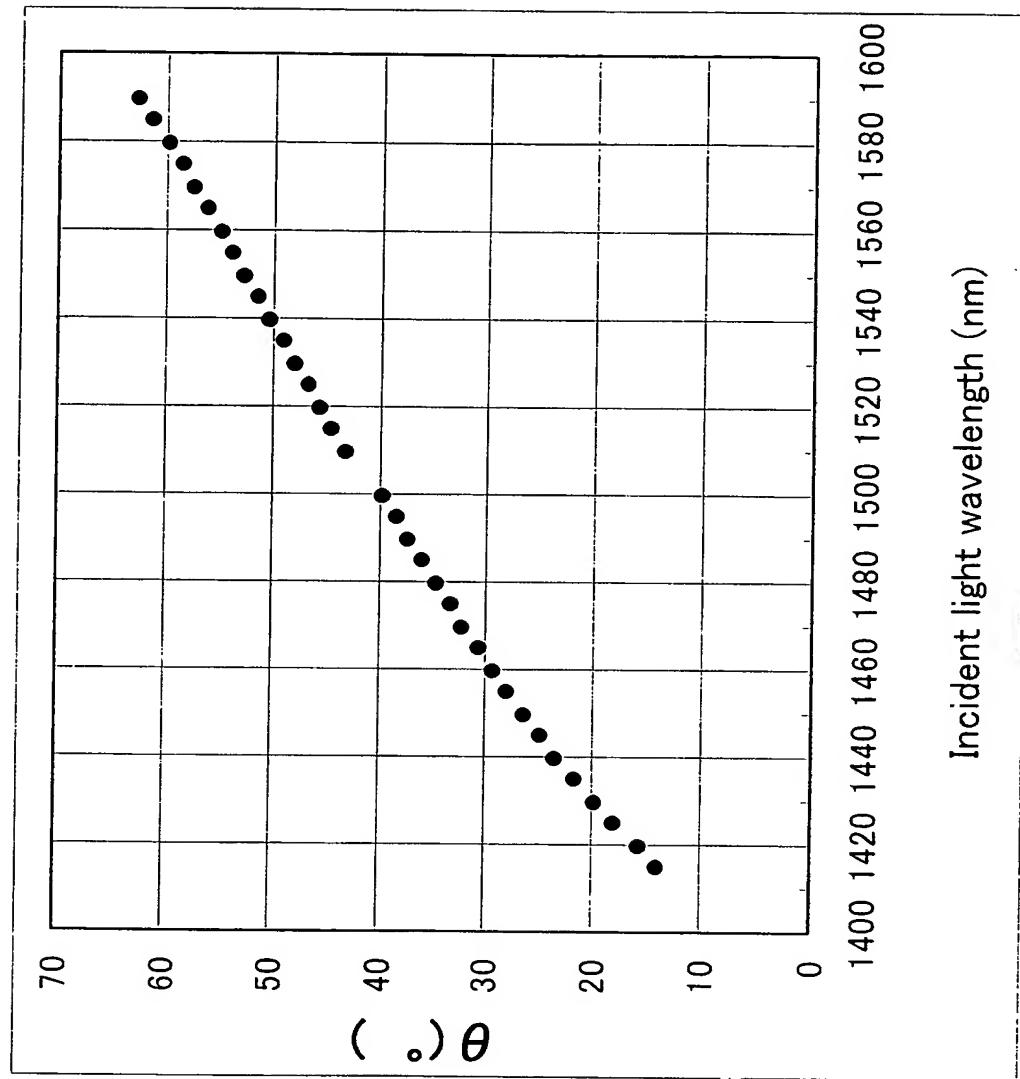


Fig. 83

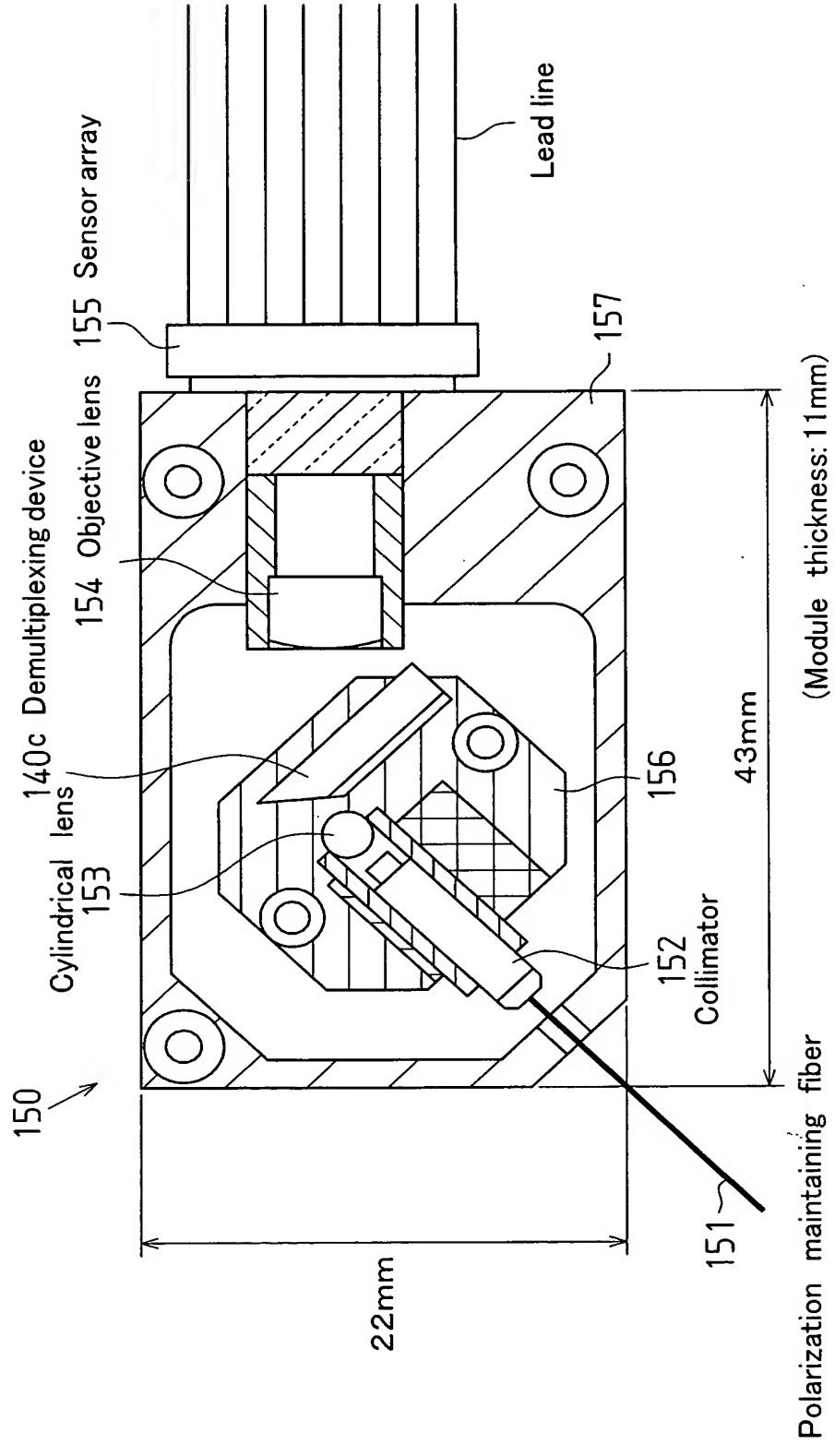
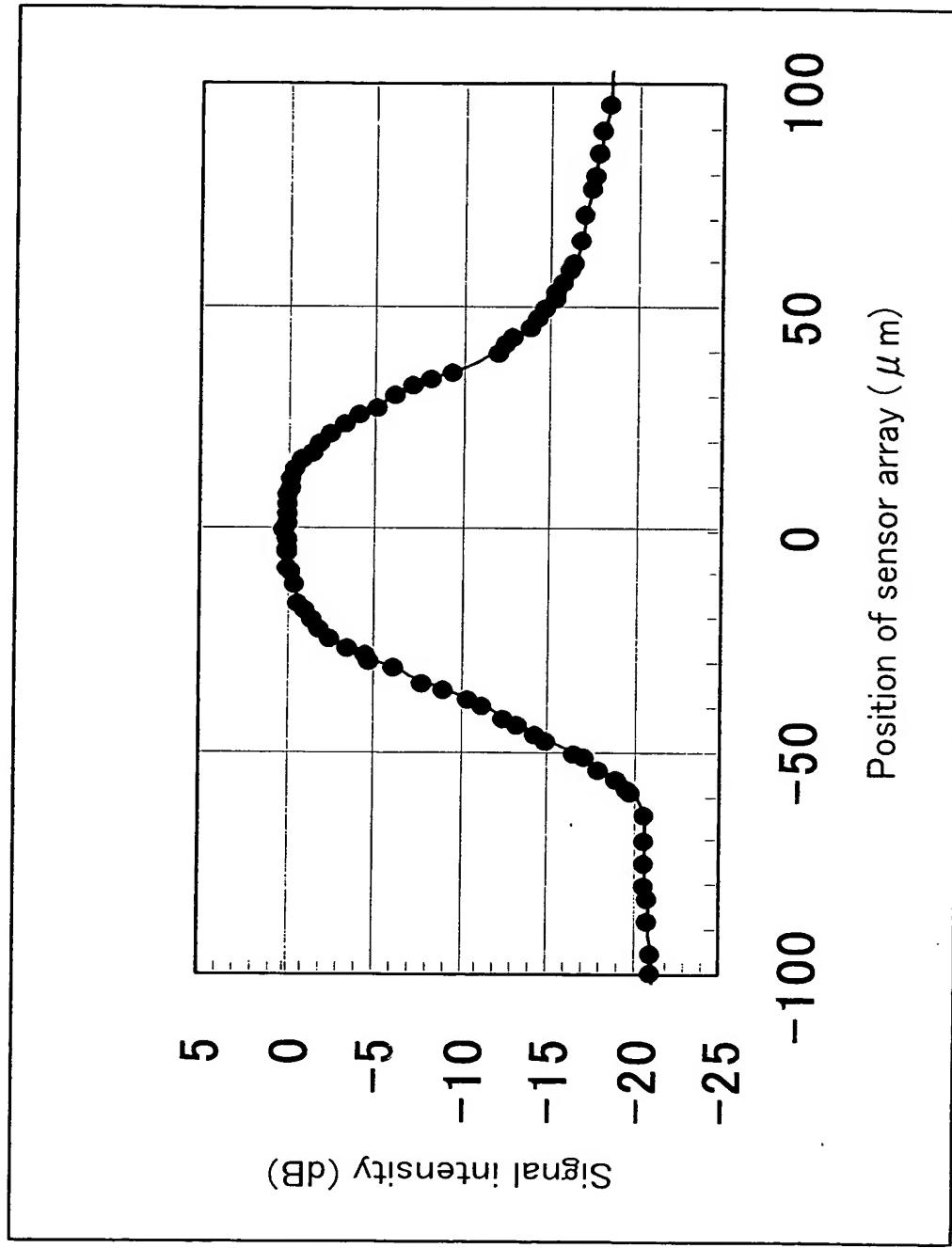


Fig. 84



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